Fix your dryer yourself and save $150

Add more storage to ANY kitchen

THE FAMILY Handyman

#1 in DIY Home Improvement

Over $620 in money-saving ideas inside!

Spruce up your yard in just one weekend!

- Soothing backyard waterfall
- Instant curb appeal — brick edging
- 2-hour bench
  That's right, just 2 hours! (and only $25)

Cool Tool SPECIAL
New cordless tools, new yard tools and a battery-powered hammer!

May 2009

DIY Driveway makeover

1 day, 50 bucks, looks like new!

thefamilyhandyman.com

A READER'S DIGEST PUBLICATION

ALL-NEW '09 F-150
Yeah, so
THE HUMP
JUST GOT ITS WALKING PAPERS.
Introducing the first COMPLETELY flat load floor AND six more inches of interior room.*
*F-150 SuperCrew.

The 2009 Motor Trend
TRUCK OF THE YEAR.™
BUILT
Ford
TOUGH
FIND OUT MORE AT FORDVEHICLES.COM

TABLE OF CONTENTS

Features

MAY 2009 VOLUME 59, NO. 5, 498TH EDITION

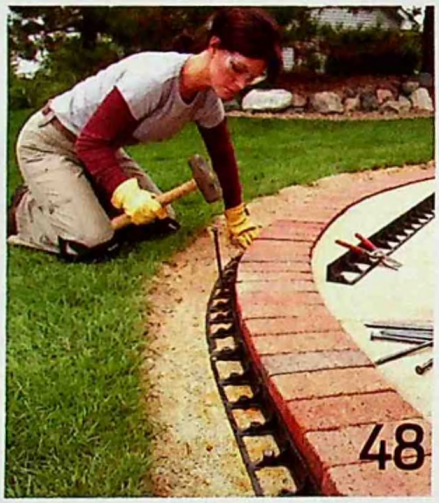
32 Weekend waterfall
A small pond and waterfall can create a great big splash in your backyard.

40 Dryer repair
Fix it yourself and save a bundle. No experience necessary!

48 Brick-border sidewalk
Dress up a drab concrete walk and boost curb appeal in just one weekend.

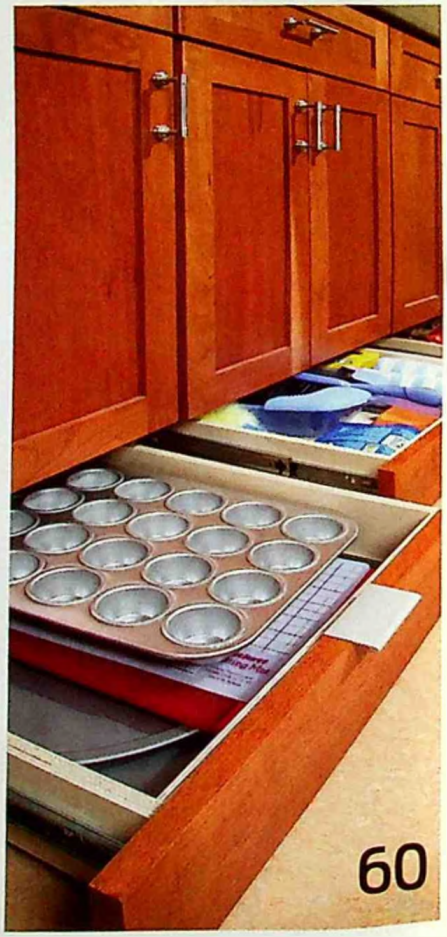
60 Under-cabinet drawers
Expand kitchen storage in two days. Our system makes it easy.

68 Driveway makeover
Get instant curb appeal now and save thousands in replacement costs later.



ON THE COVER

Dryer fixes	40
Add more storage to any kitchen	60
Backyard waterfall	32
Brick edging	48
2-hour bench	76
Cool Tool Special	26
Driveway makeover	68
Sharpen mower blades	10
Fix a bad TV picture	14



YOUR OIL PROTECTS YOUR ENGINE

BUT WHAT'S PROTECTING YOUR OIL?

3X ENGINE PROTECTION*

FRAM® EXTRA GUARD® DELIVERS 3 TIMES THE ENGINE PROTECTION BASED ON THE AVERAGE OF LEADING ECONOMY FILTERS.*

When your oil breaks down, damaging dirt and particles can threaten the life of your engine. A FRAM Extra Guard oil filter delivers advanced engine protection with specially blended glass and cellulose filter media. FRAM Extra Guard traps 95% of dirt and harmful particles, and holds them until your next recommended oil change. Don't cut corners — go with FRAM. ***To learn more about advanced engine protection, go to fram.com.***

*Based on testing of models equivalent to PH8A 3387A and 6607 under ISO 4548-12 for particles > 20 microns.
Enngine protection is the measure of a filter's ability to not just trap dirt, but hold it for the life of the filter.

© 2009 Honeywell International Inc. Printed in the U.S.A. A **Honeywell** car care product.

FRAM
THE DIRT STOPS HERE™

TABLE OF CONTENTS

10 **Home Care & Repair**
How to sharpen dull lawn mower blades and prepare for digital TV reception.

16 **Do's & Don'ts**
Here's how to edge-band plywood and get perfect results every time.

23 **Remodel Resources**
Greener bamboo flooring, fire pit tables, LED "candles" and affordable glass tile.

26 **New Tools & Gear**
A three-tool combo kit, a sawhorse with a built-in clamp and more great new tools.

76 **Instant Project**
A two-hour, $25 campfire bench. You gotta like that!

78 **Question & Comment**
Respirators for spray painting, replacing a pull chain with a wireless switch, and more.

84 **Handy Hints®**
Better ways to mix paint, preserve your glue and saw slippery stuff.

88 **Car & Garage**
How to stop rough idle, prevent license plate theft and service your spare-tire lift.

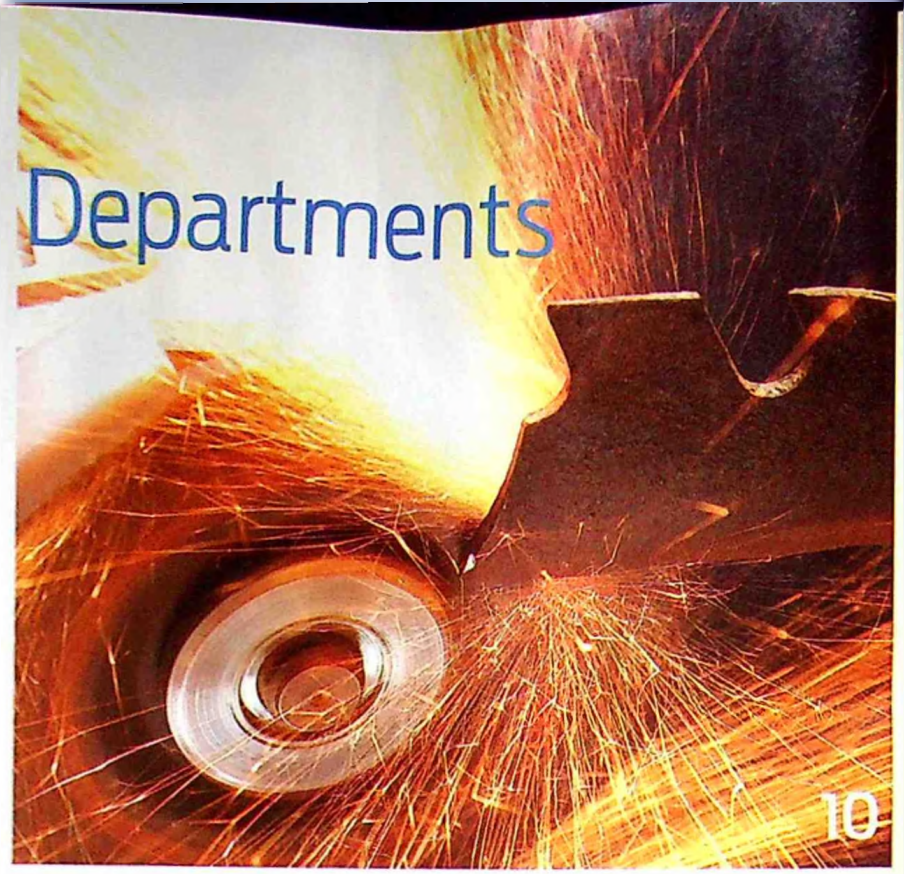
94 **Dollar Sawvy Homeowner**
Be your own locksmith, know when it pays to buy instead of rent—and save big!

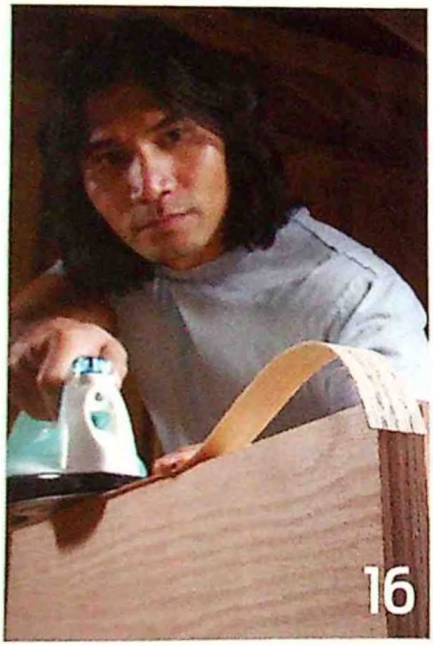
102 **Wordless Workshop®**
Pretty, easy to build fence-post birdhouses.

104 **Great Goofs®**
Running the hot tub dash, building the right deck on the wrong house—and more!

Cover Photo: TOM FENENGA

Departments





Questions about subscriptions?
For new and gift subscriptions, a change of address or help with a subscription problem, write: **The Family Handyman Subscriber Service Dept.**, Box 8174, Red Oak, IA 51591-1174, or call (800) 285-4951. Or send us an e-mail at FHMservice@mdcrm. Allow two issues for address changes.

Customer information
Reader's Digest may share information about you with reputable companies so they can offer you products and services of likely interest to you. If you don't want us to share this information, please write to Reader's Digest Mailing List, Attn.: Cust. Dept., Reader's Digest Road, Pleasantville, NY 10570. Please include a copy of your address label.

Back issues/article copies
Some past issues are still available for $5.00 each. Photocopies of articles are available for $3.00 each. Call (715) 246-4521 from 8 a.m. to 5 p.m. Central, Monday through Friday, for availability and ordering, or write to: **Back Issues**, The Family Handyman, P.O. Box 83695, Stillwater, MN 55083-0695. Or send us an e-mail at familyhandyman@nrmsinc.com.

Comments and suggestions
We welcome your ideas and opinions. Write to:
The Editor, The Family Handyman,
2915 Commers Dr., Suite 700,
Eagan, MN 55121. Fax: (651) 994-2250.
E-mail: theditor@readersdigest.com
Web site: thefamilyhandyman.com

When pain gets in the way of doing the things you enjoy, try Aleve. Only Aleve has the strength to stop body, joint, back and arthritis pain† all day with just two pills. It would take twice as many Advil or four times as many Tylenol to do that. For all day pain-free movement, nothing helps you move your body better than Aleve.*

NEVER STOP MOVING

*Among OTC brands
†Use as directed for minor arthritis pain
Comparison to Advil and Extra Strength Tylenol based on minimum label dosing for 24 hours
© 2009 Bayer HealthCare LLC

Bayer HealthCare

TABLE OF CONTENTS

thefamilyhandyman.com

> **Millstone fountain**
Build it in a weekend using a homemade mold and inexpensive concrete.

> **Tips for perfect trim**
Secrets for tight-fitting joints and solutions for frustrating situations.

> **Concrete finishing tips**
A concrete pro shares the secrets of a smooth, durable surface, whether it's a small slab or a long sidewalk.

> **Gas grill overhaul**
Easy repairs and inexpensive parts make an old grill as good as new.

Millstone fountain

Gas grill overhaul

Tips for perfect trim

Concrete finishing tips

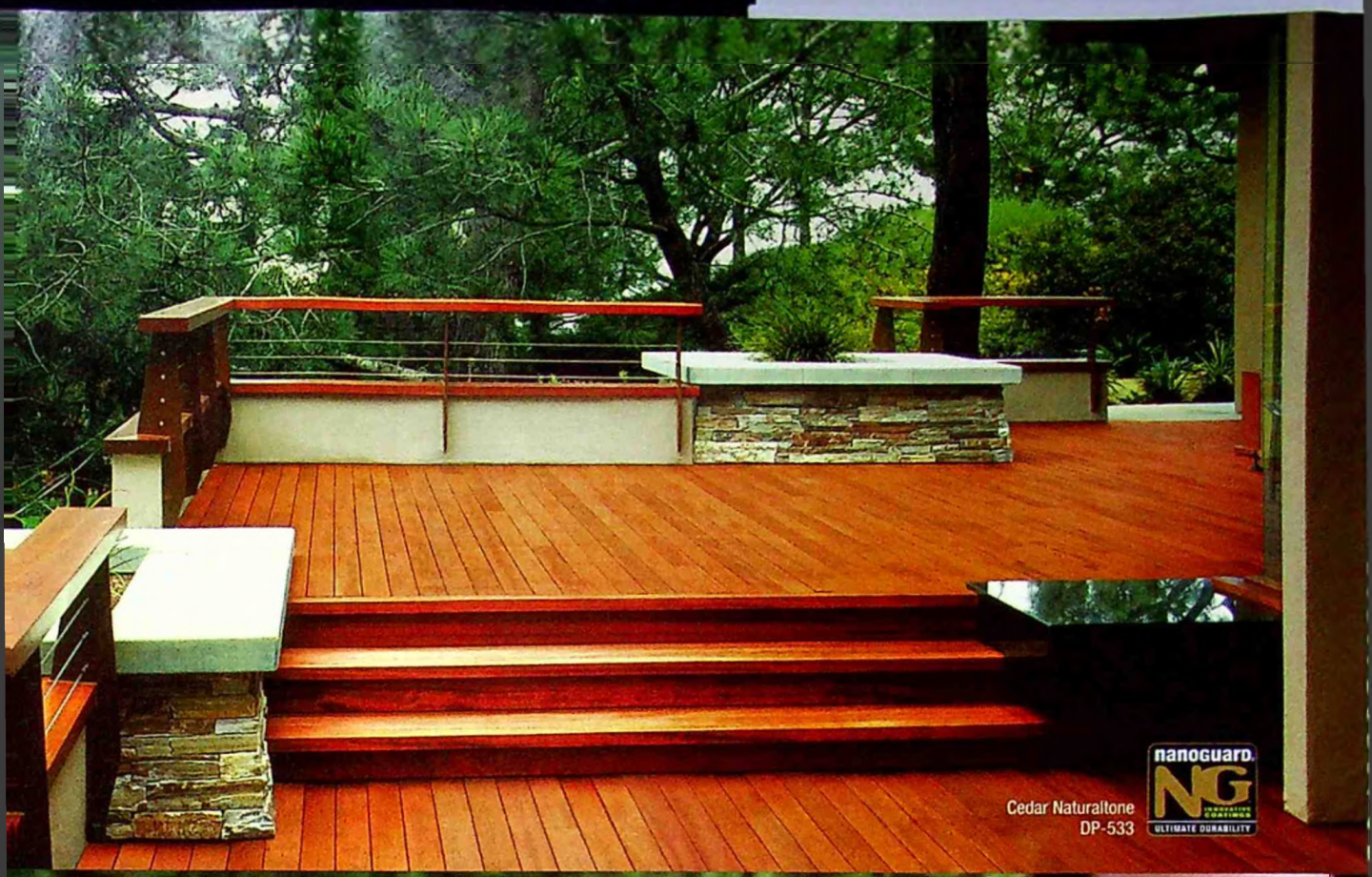
Got a project you're proud of?

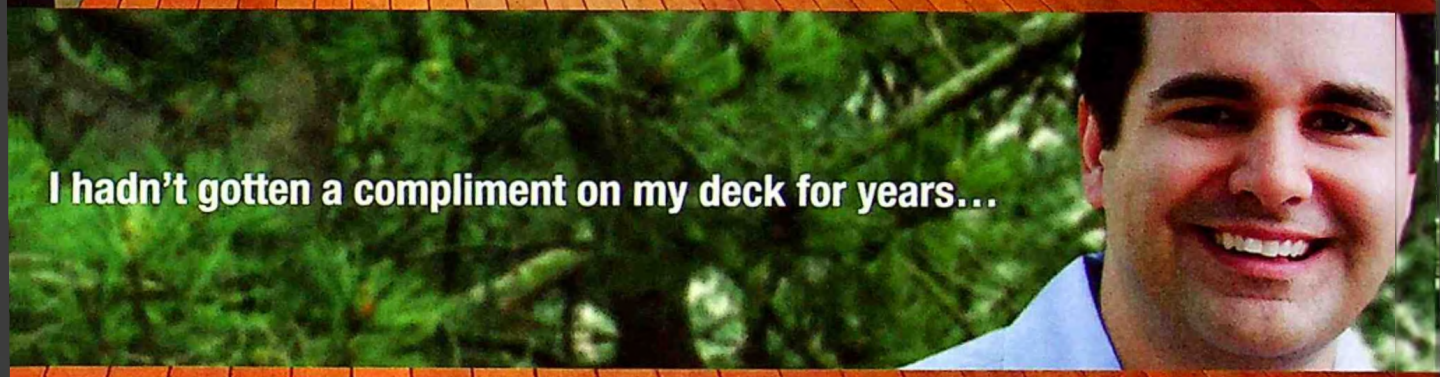
Show it off at our online gallery. Go to thefamilyhandyman.com and click on the "DIY gallery" (at the right of the page under "Editors' Picks"). Uploading your photos is easy and takes just a few minutes.

Volunteers needed

We're looking for DIYers to help us make *The Family Handyman* better. Become a TFH field editor, whether you're a novice DIYer or a veteran. If you're willing to share your opinions and experiences, e-mail us at editors@thefamilyhandyman.com.

To find any of these articles after May 15, 2009, just type the title into the search box on our home page.





Now that's all I get.

BEHR Premium Weatherproofer rejuvenated my deck like some kind of magic. The NanoGuard technology makes all the difference—and the protection lasts. Now I'm spending less time maintaining my deck and more time enjoying it. And the best part is, everybody who comes over tells me how great it looks.

BEHR
GOOD. BETTER. BEHR.™
Exclusively at THE HOME DEPOT

BEHR and NanoGuard are registered trademarks of BEHR Process Corporation.
©2009 BEHR Process Corporation.

www.behr.com

On the House

With the Carey Brothers

Tips of the Month

Heads-up on Sprinklers

Spring means beautiful lawns and gardens are on the way, but are your sprinklers all working OK? Pop-up sprinkler heads are easily damaged and often get clogged with dirt and debris. Check and repair sprinkler heads that are worse for wear in less than an hour with a flat-blade screwdriver and a pair of pliers. If a head is clogged, remove the center insert by turning it clockwise with the pliers. Inspect the openings, clean the small cone filter and check water flow by running it like a geyser before reassembling and checking the spray action. If it's no longer aimed properly or over-waters, be sure to readjust to avoid wasting water and causing moisture damage to your home. Puddles are usually caused by plant growth – just trim to clear. If needed, reset sprinkler patterns too. Check timers to see if you're over- or under-watering. And inspect your entire system monthly to be sure it's still working all right.

Cleaning Grease Stains on Concrete

Do your driveway and garage floor look like an Indy 500 pit stop? If so, try this Carey family formula for cleaning greasy stuff. First, grab some cat litter and spread it around on the grease and grind it in real well, walking and twisting around on it. Sweep it up and properly dispose of it just as you would motor oil, paint and other toxic materials. Next, pour a cola beverage all over the area and allow it to sit for about 15 minutes, but don't let it dry. It's best to do this in the shade during the cool of the day. Use a stiff bristle broom to scrub the cola-soaked stains. Wash off the cola with fresh water and whiten the grey stain that remains using a solution consisting of 1 cup of liquid chlorine bleach and 1 cup of powdered laundry detergent in 1 gallon of very hot water. Scrub, let it sit for about 10 minutes, and rinse with fresh water. Tough stains may require a commercial concrete cleaner, but try this safe and cost effective alternative first.

Nail gun injuries

Nail guns are useful tools yet are extremely dangerous. There are almost 15,000 injuries caused by nail guns a year. The most common causes are from the guns being improperly aimed and accidental discharge. Manufacturers are working to reduce or eliminate the latter -- with dual-triggering safety devices and other precautions that require pressure before firing. When using a nail gun, avoid reaching around a board to drive a nail toward yourself. Take care when toe-nailing at a low angle and be sure the safety is on when you lay a nail gun down. Most important of all – never point a nail gun at anyone! It fires nails at 1,500 feet per second, faster than a .45 automatic.

Removing Old Caulk?

Caulking defends your home against the elements, but over time it weathers, becomes brittle and needs to be removed. Previously, there was only one choice and that was scraping and gouging out old caulk. The older the sealant, the harder and nastier the job. Today there is a new way to "soften up" what was once a nasty home improvement chore. Caulk remover is a gel-like goo that softens virtually any caulk. For easy, no-hassle removal, just pour a 1/8-inch bead on the old caulk and let it set according to the directions. Then just scoop it out; it will be as soft as new. Then trim off any residue with a razor blade or sharp utility knife. Caulk remover makes a tough job much easier.

On the House
With the Carey Brothers

Ask the Carey Brothers a home improvement or remodeling question on their live radio broadcast every Saturday from 9:00 a.m. to 1:00 p.m. Eastern Time. Call toll-free at 1-800-737-2474 to ask your question.

brought to you in part by:

SERIOUS MATERIALS

PexSupply.com

LENNOX

Visit their website at **www.onthehouse.com** for recaps of the show & other helpful info

THE FAMILY Handyman

#1 In DIY Home Improvement since 1951

Editor in Chief: Ken Collier
Senior Editors: Travis Larson, Gary Wentz
Associate Editors: Elisa Bernick, Mary Flanagan, Jeff Gorton, Brett Martin
Senior Copy Editor: Donna Bierbach
Design Director: Sara Koehler
Senior Art Director: Bob Ungar
Art Directors: Becky Pfluger, Marcia Rosch
Photographer: Tom Fenenga
Contributing Editors: Bob Lacivita, Rick Muscoplat, Jeff Timm
Office Administrative Manager: Alice Garrett
Financial Assistant: Steven Charbonneau
Administrative Editorial Assistant: Roxie Filipkowski
Production Manager: Judy Rodriguez
Production Artist: Mary Schwender

EDITORIAL OFFICE
The Family Handyman
2915 Commers Drive, Suite 700
Eagan, MN 55121; 651-454-9200

Associate Publisher, Sales: Chris Dolan
Associate Publisher, Marketing: Christine Maggiore-Escribano
Senior Marketing Manager: DeBorah Charles
Marketing Assistant: Amy Nizwantowski
Advertising Coordinator: Barbara Berezowski
Associate Art Director: Amanda Holt
Business Manager: Aseem Chhabra
Senior Manager, Marketing Intelligence Group: Maureen Simonelli

ADVERTISING SALES OFFICES
Main Office
260 Madison Ave., Fifth Floor
New York, NY 10016
212-850-7226, 212-696-9519 (fax)

New York: Greg Messina, Tuck Sifers, Whitney Man (Sales Assistant)
Phone: 212-850-7226; Fax: 212-696-9519

Detroit: Scott Hayes
Phone: 248-265-4480; Fax: 248-265-4482

Canada: Fenn Co., Stuart Teather
Phone: 905-833-6200; Fax: 905-833-2116

Chicago: Carl Benson (Midwest Sales Manager), Julie Stuber (Sales Assistant)
Phone: 312-540-4824; Fax: 312-540-9556

Minneapolis: Carl Benson
Phone: 312-540-4802; Fax: 312-540-9556

West Coast: Catherine Marcussen (Director)
Phone: 323-205-0409

Southern States: Dan Kellner Phone: 972-529-9687

Classified and Small Display Advertising
The McNeill Group, Inc.
John Chaykin, Classified Manager, 215-321-9662, ext. 31

THEFAMILYHANDYMAN.COM
Executive Online Editor: Beth Turner
Editor: Chandni Jhunjhunwala
Art Director: Kaming Liu

President, Home & Garden and Health & Wellness: Alyce C. Alston
President, Global Consumer Marketing: Dawn M. Zier
Vice President, Global Consumer Marketing: Cara Schlanger
Circulation Director: Dave Flegel

PUBLISHED BY HOME SERVICE PUBLICATIONS, INC., A SUBSIDIARY OF THE READER'S DIGEST ASSOCIATION, INC.

President and Chief Executive Officer: Mary G. Berner

Volume 59, No. 5, 498th Edition. The Family Handyman®, ISSN: 0014-7230, USPS: 515-930. Home Service Publications, Inc. (Published by), 260 Madison Ave., Fifth Floor, New York, NY 10016. Published monthly (except bimonthly in July/August, December/January). Periodicals postage paid at New York, NY, and additional mailing offices. Postmaster: Send change of address notice to The Family Handyman Subscriber Service Dept., Box 8174, Red Oak, IA 51591-1174; 800-285-4961. Subscriptions: In the U.S.A., its territories and possessions, $24 for one year (10 issues). For countries outside the U.S.A., subscriptions are $28.97 per year in American currency. Canadian GST registration number R123771891. CPM agreement number 1447815. Printed in the U.S.A.

Copyright ©2009 Home Service Publications, Inc. All rights reserved. Unauthorized reproduction, in any manner, is prohibited. The Family Handyman, Handy Hints and Great Goofs are registered trademarks of RD Publications, Inc. Wordless Workshop, Workshop Tips and ⌂ are trademarks of RD Publications, Inc.

Subscribers: If the U.S. Postal Service alerts us that your magazine is undeliverable, we have no further obligation unless we receive a new address within one year.

EasyCare
ULTRA PREMIUM
$5.00 off
Any $25 Purchase
Plus FREE masterful advice.
True Value
START RIGHT. START HERE.
OFFER EXPIRES JULY 31, 2009

by Jeff Gorton
editors@thefamilyhandyman.com

Art Direction MARCIA ROEPKE · Photography TOM FENENGA · Consultant AL HILDENBRAND, MASTER ELECTRICIAN

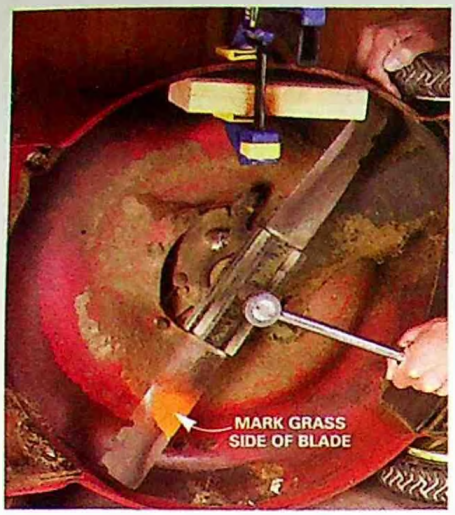
Sharpen your lawn mower blade

You wouldn't take care of grass that's too long by tearing off the end of each blade, would you? But that's exactly what a dull lawn mower does, leaving the torn grass vulnerable to sun damage and disease. You could sharpen your mower blade with a file (it takes forever!), a rotary tool or a bench grinder, but we'll show you how to do the job with an angle grinder. It's fast and easy. If you don't own a grinder, you can buy one for about $60 and use it for all kinds of other tasks too.

To sharpen your lawn mower blade, you'll need a socket or wrench to fit the

1 Pull the wire from the spark plug. Remove the gas cap, put a piece of plastic over the opening and replace the cap. This will help prevent gas spills when you flip the mower to access the blade.

NOT ALL FISHING BUDDIES
HAVE FACIAL HAIR.
On the water memories aren't made, they're caught. To discover all the ways boating and fishing can enrich your life, visit takemefishing.org.
TAKE ME FISHING™
takemefishing.org
SPORT FISH RESTORATION



2 Clamp a block to the lawn mower skirt to stop the blade from spinning while you unscrew the nut. Use the longest wrench you can find to loosen the nut. It's likely to be very tight.

blade nut. Tough nuts may call for a breaker bar and/or a penetrating lubricant. You'll also need two clamps, a block of wood and, of course, an angle grinder with a metal grinding blade.

Start by disconnecting the spark plug wire (**Photo 1**). Next, place a piece of plastic (a sandwich bag works well) under the gas cap to prevent gas from leaking out of the vent hole when you tip the mower. Tip the mower so the side with the carburetor faces up.

Clamp a 2x4 block to the side of the mower to keep the blade from turning while you loosen it. Mark the "grass side" of the blade so you don't reinstall it upside down. Use a socket wrench or a breaker bar to turn the nut counterclockwise to loosen it (**Photo 2**). If it's stubborn, soak it with penetrating oil for a half hour and try again.

thefamilyhandyman.com

- To see what else you should do to get your lawn mower ready, go to thefamilyhandyman.com/maintainlawnmower.
- For more uses for a grinder, go to thefamilyhandyman.com/anglegrinder.

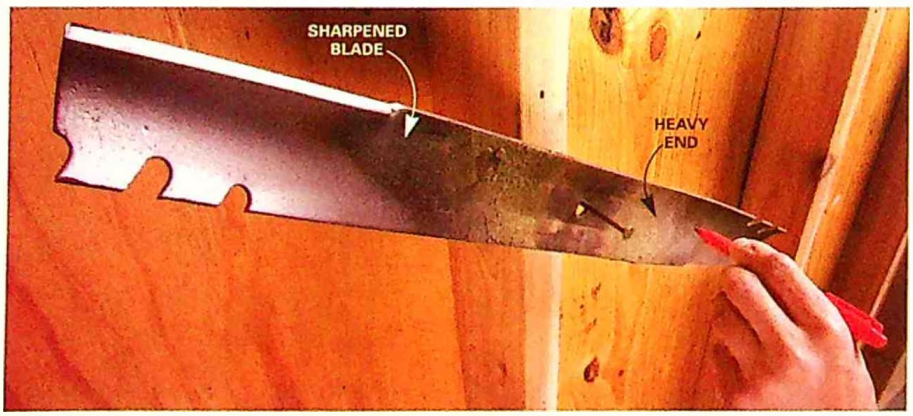
Clamp the blade securely in a vise or to the edge of your workbench. Prepare for grinding by putting on your gloves, face shield, hearing protection and a long-sleeve shirt. Before you start grinding, hold the grinder against the blade and tip it up or down until the grinding disc is aligned with the angle on the blade. Try to maintain this angle as you grind. Keep the grinder moving and apply only light pressure so you don't overheat the blade or grind away too much (**Photo 3**). If you overheat the metal, it'll turn dark blue or black and become brittle. Then it won't hold an edge. Your goal is to remove the nicks and dents and create an edge that's about as sharp as a butter knife. A razor-sharp edge will dull quickly and chip more easily.

Make several passes across the blade with the grinder, checking your progress frequently. You don't want to grind off more than necessary. If your blade has a lot of nicks and gouges, try this. Start by holding the grinder at a right angle to the blade and grinding the edge of the blade flat to remove the nicks. Be careful to use light pressure and move quickly. It's easy to burn the thin edge. After you've removed the nicks, go back to grinding at the correct blade angle.

If your blade has deep nicks or is cracked, bent or worn thin, don't sharpen it; buy a new one. You'll find the best selection at stores that sell and service lawn equipment. Take the old blade with you to get an exact match.

If you don't grind away the same amount of metal from both sides, the blade can become unbalanced. You can buy a special blade-balancing cone or simply hang the blade on a nail (**Photo 4**). Correct an unbalanced blade by grinding a little metal from the blunt end of the heavy side of the blade until it balances on the nail. Make sure the marked side is toward you when you reinstall it and that you tighten the nut securely.

3 Grind the blade carefully with an angle grinder to remove nicks and dents and restore the edge. Make several light passes to avoid overheating the blade.



4 Balance the blade on a nail after you've sharpened both edges. If one side is heavy, it'll drop. Mark the heavy side so you'll know which end to grind. Grind a little off the heavy side and hang the blade on the nail again to recheck it. Repeat this process until the blade hangs level.

MONUMENTAL MOMENTS IN HISTORY

1835 — The wrench is patented

1868 — The tape measure is patented

1964 — BRUT® makes its national debut... men everywhere now have the one and only tool they need to fight odor and wetness

TODAY — BRUT® introduces 24 Hour Protection with Trimax® Anti-Perspirant and Deodorant for extreme protection against odor and wetness – it's a D-I-Y that will keep you D-R-Y

Brut® – clinically proven to be most effective at fighting odor and wetness. Maximum strength Brut® 24-Hour Protection with Trimax® anti-perspirant and deodorant uses the same active ingredient found in more expensive prescription strength brands. Now that's power you can count on. Try it today and find out how well it works!

BRUT®. THE ESSENCE OF MAN® • WWW.BRUTWORLD.COM

© 2009 Idelle Labs, Ltd.

Bad TV reception? Here's one fix

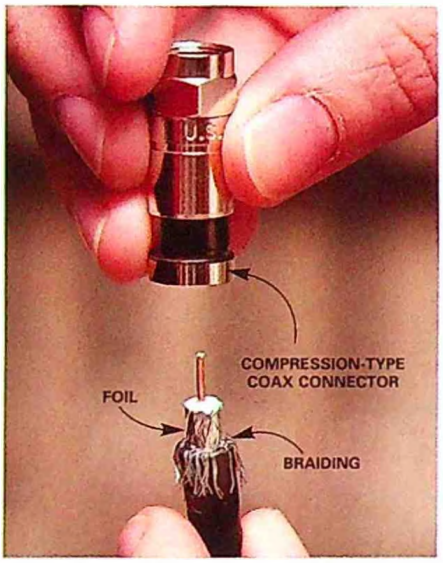
According to cable repair experts, corroded or faulty cable ends are one of the leading causes of a poor-quality picture. And with the transition to digital broadcasting, poor connections are going to become even more apparent. So if you're having problems with your picture or you just want to make sure you're prepared for the new digital signals, replace the crimp-on ends of your coax with state-of-the-art compression-type connectors. Here's how.

We purchased a DataShark Satellite & Digital Cable Tool Kit (No. 70019; $39) that includes everything you need to install compression-type RG6 coaxial cable ends. Go online to datasharktools.com to find a local retailer. You can also buy the tools and connectors separately. You'll need a side-cutting pliers or other cutting tool to clip off the old cable ends, a special coax cable stripping tool to prepare the cable end for the connectors, and a compression tool to install the new ends. But before you purchase tools or connectors, you'll have to determine whether your coaxial cable is RG6 or the less common RG59. RG6 is the standard for new installations, but if you're replacing the ends on older cables, they might be RG59 (the white plastic dielectric that surrounds the center conductor is smaller on RG59 coax). Without a side-by-side comparison, it's hard to tell the difference between the two. To be sure, cut one of your coax cable ends off and take it along to the store. Ask a salesperson to help you identify the type.

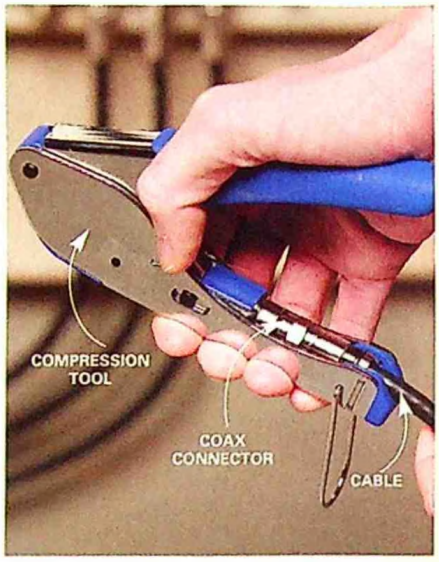
Photos 1 – 4 show how to replace an old coaxial cable end with a new compression-type RG6 connector. It's pretty straightforward, but there are a few things to watch out for.

1 Your coaxial cables corrode over time, which can result in a bad picture on your television. To fix, begin by cutting off the old ends.

2 Prepare the end of the cable for installation of the new F-connector with a special coax cable stripper. This is a two-step process with this style stripper.



3 Push the new fitting onto the end of the stripped coax. First bend the braided sheathing back and check to make sure that no foil or braided sheath is touching the copper conductor.



4 Compress the connector with a special compression tool. It's simple. Just slip the connector into the tool and squeeze the handle.

First, you have to strip the cable carefully to avoid damaging the conductor or sheathing. Start by positioning the cable in the outermost hole with the blade aligned 1/4 in. from the end of the cable. Twist the stripper around the cable two or three times to slice through everything but the center conductor. Remove the cable and slide the cut section off to expose 1/4 in. of bare copper conductor. Inspect the conductor carefully to make sure it's not cut or nicked. Next reposition the cable to the second hole in the stripper so the blade is aligned 1/4 in. behind the stripped section. Spin the stripper around a few times to cut the outer jacket. Remove the cable from the tool and slide the jacket off to expose 1/4 in. of the braided sheathing.

Prepare the cable end for the connector by carefully folding the braided sheath back onto the outer jacket (**Photo 3**). On quad-shield cables, you'll find two braids and two layers of foil. In this case, bend three layers back but leave one layer of foil covering the white plastic dielectric in place. It's critical to make sure that neither the foil nor any of the tiny braided wires are touching the center conductor.

Before you put the connector in the compression tool, press the connector onto the stripped cable end. You may have to twist the connector slightly as you push to get it to seat correctly. Then slip the connector into the compression tool and squeeze the handle until the compression sleeve is fully seated.

It's as friendly to the environment as it is to your budget.

UP TO $1,700 CASH BACK

OR

FREE 10-YEAR EXTENDED WARRANTIES

+

UP TO $1,500 TAX CREDIT

Offers only available on select systems. Call your participating York Dealer for promotion dates and details.

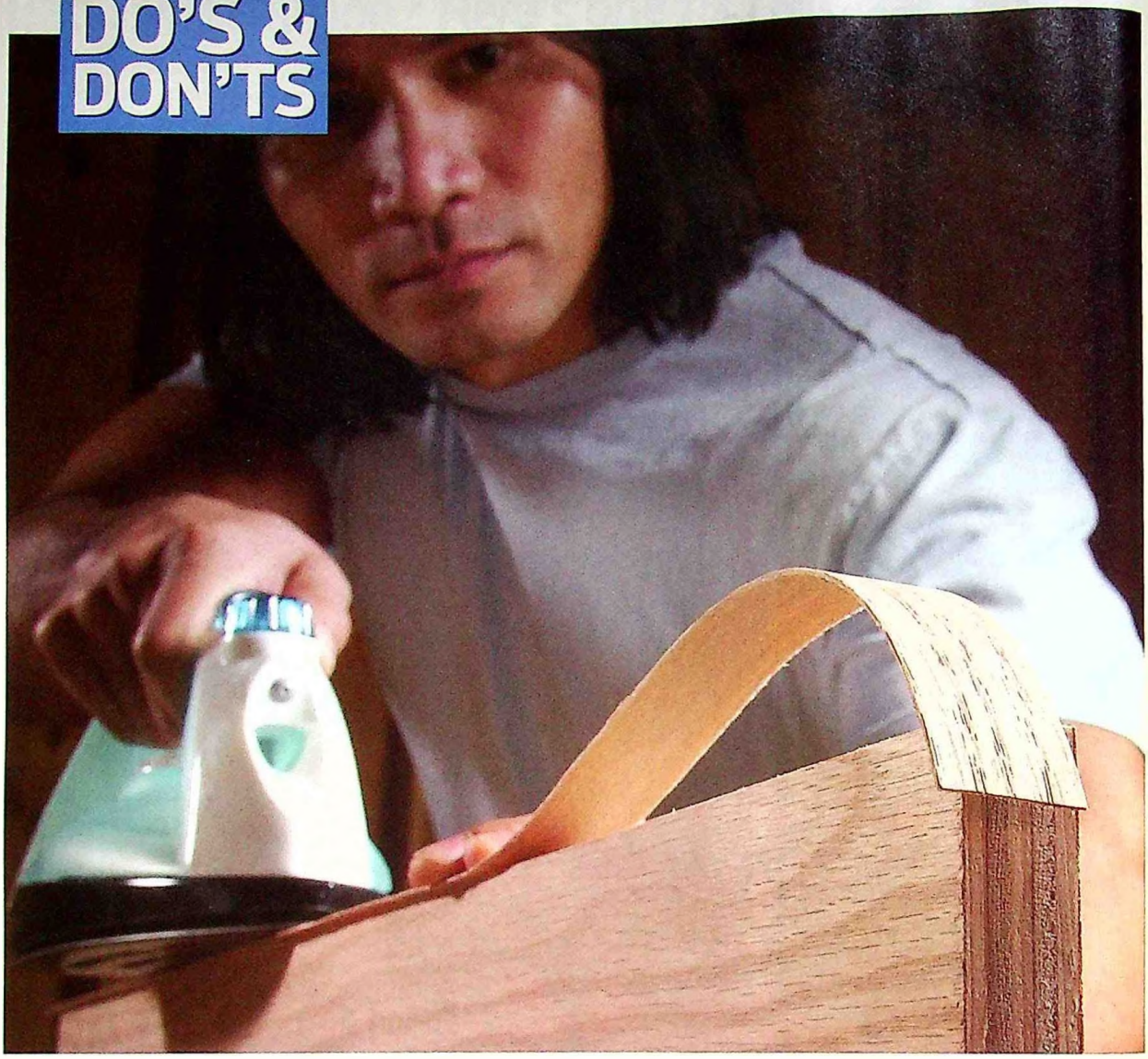
ne more efficient a system, the less energy it uses, and the better it is for the environment. The York Affinity™ Series Air Conditioners md Heat Pumps meet or beat the government's energy efficiency standards with SEER ratings of up to 18. Plus, Affinity models re available with eco-friendly refrigerant that is safer for the ozone layer. And all Affinity models are so quiet, you and your outdoor neighbors" will hardly know when one's running. With Affinity, efficiency comes naturally. For more information, call 00-910-YORK or visit us online at **york.com**.

The eco-friendly York Affinity Series Air Conditioners and Heat Pumps.

YORK®
It's time to get comfortable.®

DO'S & DON'TS

by Jeff Gorton
editors@thefamilyhandyman.com

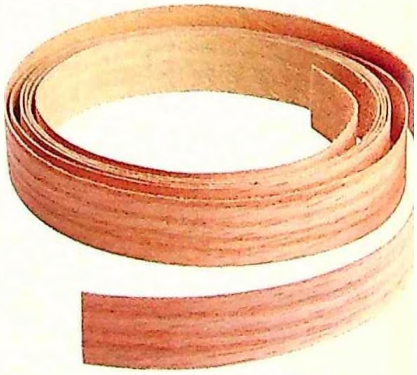


Iron-on edge banding

With a roll of wood veneer edge banding and a few simple tools, you can cover raw plywood edges so the plywood is nearly indistinguishable from solid wood. Iron-on edge banding is wood veneer with hot-melt adhesive preapplied to the back. You simply hold the edge banding in place, run over it with a household iron to heat the adhesive, let it cool and trim the edges flush. We'll show you how to do it and share some tips for getting perfect results every time.

You'll find edge banding in common species like birch, oak and cherry at home centers and lumberyards. For exotic species and a greater variety of widths, search online or visit a specialty woodworking store like Rockler or Woodcraft. Rolls of edge banding come in lengths of 8 ft. to 250 ft. and widths of 13/16 in. to 2 in. For typical 3/4-in. plywood, buy 13/16- or 7/8-in.-wide edge banding (20¢ to 65¢ per linear ft.).

If you'd rather cover the edges with solid wood nosing, go to thefamilyhandyman.com and search for "wood nosing."



7/8" OAK EDGE BANDING

TEMPUR-PEDIC®

THINK OF IT AS ADDITIONAL HEALTH INSURANCE

Welcome to Tempur-Pedic®

...where we've always believed better sleep can make you healthier.

These days, it seems like more and more people are understanding the relationship between better sleep and better health. So we're proud that our authentic Tempur-Pedic mattress is the only mattress that is recommended worldwide by more than 25,000 health care professionals. They know that you can cover a traditional mattress with padding or a pillow-top, but you can't hide the truth: Those metal springs can create painful pressure points. But every Tempur-Pedic is filled with our unique Swedish TEMPUR® material, which absorbs pressure, cushioning your body for the kind of sleep you just can't get on a bed of metal springs. So we genuinely believe that when you choose ur next bed, it can also be a healthy choice. l for more information.

LIMITED 20 YEAR WARRANTY

The ClassicBed *by* Tempur-Pedic®

TEMPUR-PEDIC®

welcome to bed™

BY MORE THAN 900 PROFESSIONALS WIDE

Ease-of-Use Commendation By ARTHRITIS FOUNDATION® www.arthritis.org

CONSUMERS BEST BUY DIGEST

THE *ONLY* MATTRESS RECOGNIZED BY NASA AND CERTIFIED BY THE SPACE FOUNDATION

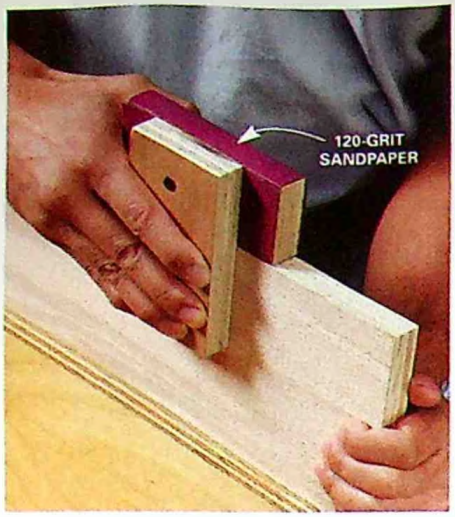
LIMITED WARRANTY TO CONSUMERS Good Housekeeping Promises REPLACEMENT OR REFUND IF DEFECTIVE

Call today for your FREE Information Kit with FREE DVD / FREE Sample / FREE Tryout Certificate

800-640-3136

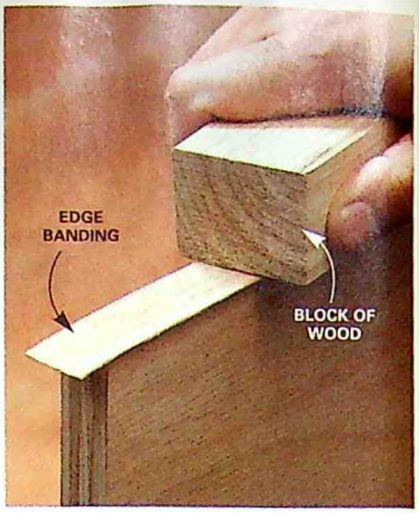
or visit us online at www.TempurPedic.com

dic Management, Inc.



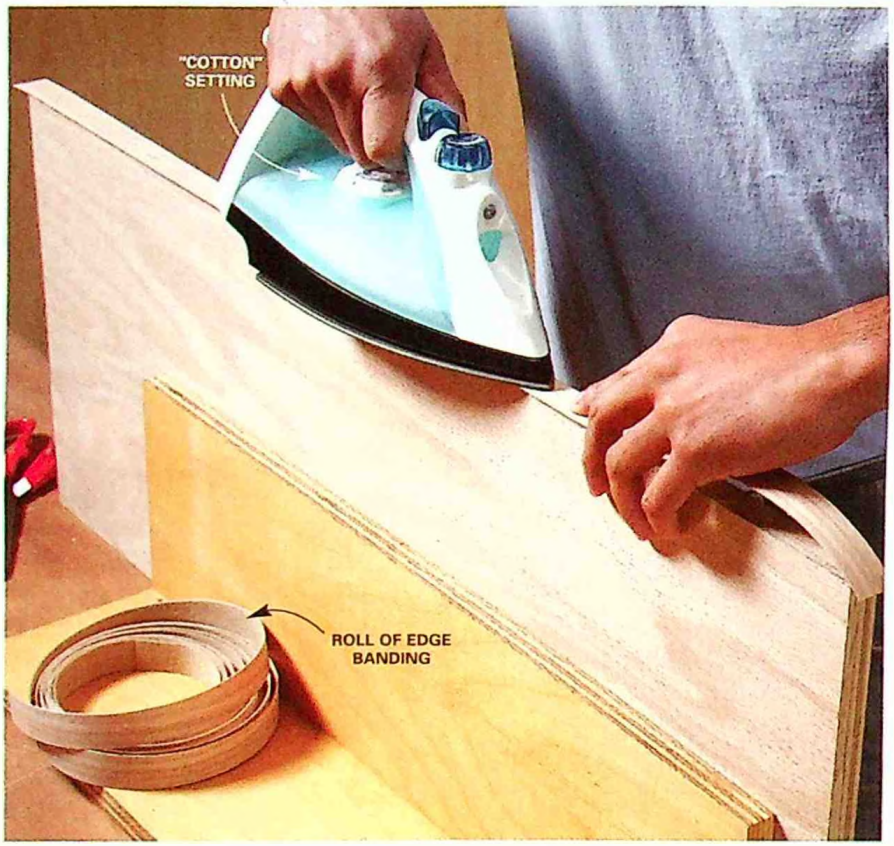
Clean up the edges

Saw marks or other roughness will prevent a strong bond between the edge banding and the plywood. To avoid loose edge banding, sand the edges of the plywood smooth before you apply it. To keep from rounding edges while you sand, wrap a quarter sheet of 120-grit sandpaper around a small block of 3/4-in. plywood and screw another scrap to it as a guide. When the sandpaper starts showing signs of wear, remove the screw and reposition the sandpaper. After sanding, vacuum the edge to remove any dust.



Press it while it's hot

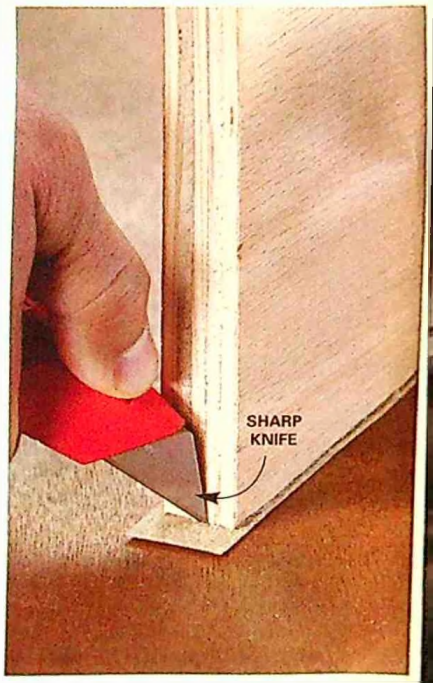
Make sure the edge banding is fully adhered by pressing it down with a block of wood while it's still hot. Go back and forth over the edge a few times while the glue is cooling. Look for any areas that are raised. Heat those spots again and press them again with the block.



Iron on the edge banding

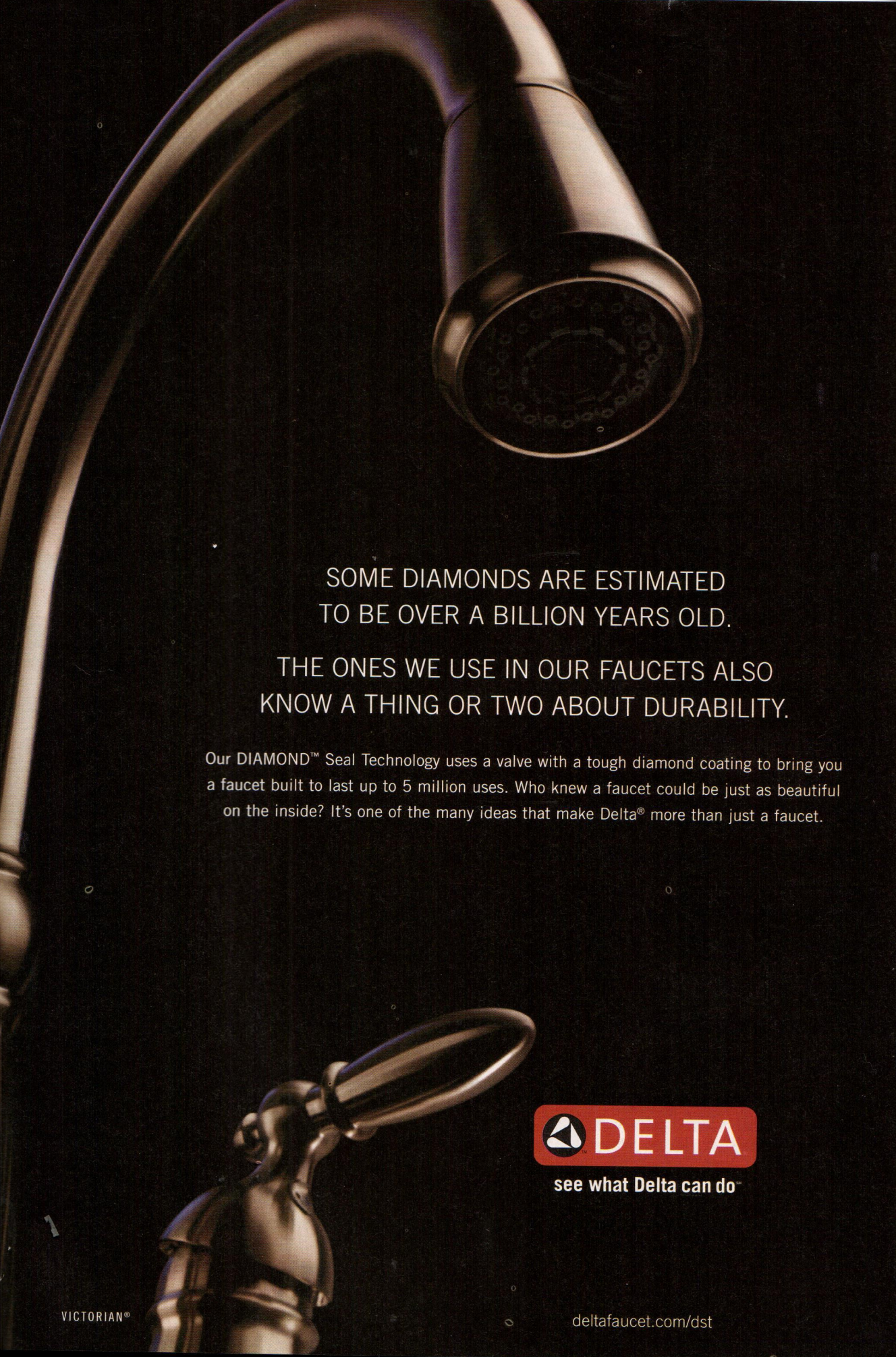
Use your regular clothes iron if you wish, but be aware that you may get adhesive on the soleplate. To be safe, buy a cheap iron from a thrift store or discount retailer. Empty the water out to avoid any steam and move the heat setting to "cotton." Use a scissors to cut a length of edge banding about 1 in. longer than the edge you're covering. Starting at one end, center the edge banding with equal overhangs on each side and set the preheated iron at that end. Move the iron along the surface, keeping the edge banding centered with your other hand. Move the iron along at a rate of about 2 in. per second. The goal is to melt the adhesive without scorching the wood.

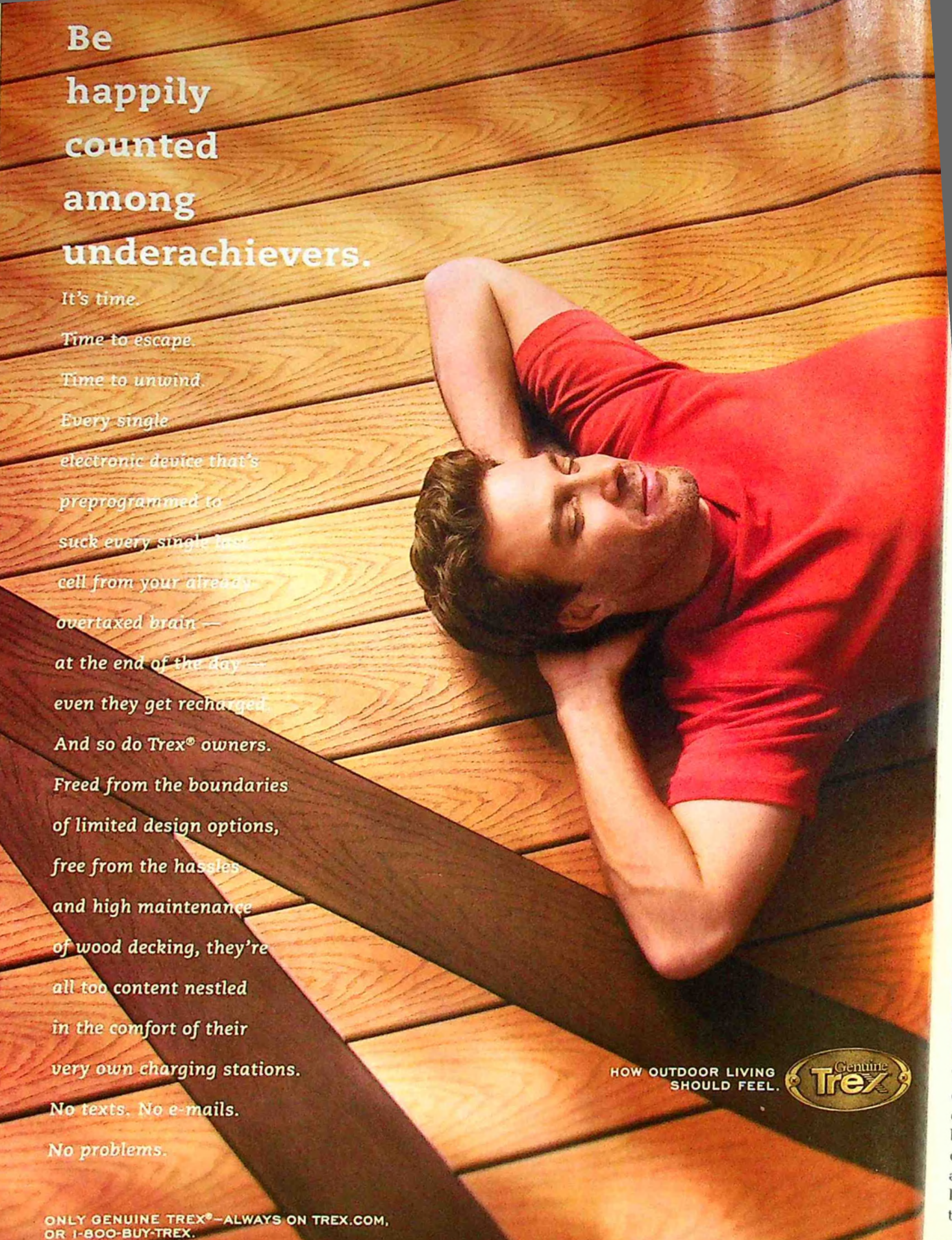
Don't sweat it if you scorch or misalign the banding during application. Just run the iron over it again to soften the glue so you can peel the banding away. Cut yourself a new piece and start over.



Slice off the ends

The easiest way to remove the overhanging ends is to simply slice them off with a utility knife. Place the edge banding on a work surface and lightly score it a couple of times. Don't worry about cutting all the way through. Just lift the plywood and bend up the banding to snap it off.


SOME DIAMONDS ARE ESTIMATED
TO BE OVER A BILLION YEARS OLD.
THE ONES WE USE IN OUR FAUCETS ALSO
KNOW A THING OR TWO ABOUT DURABILITY.
Our DIAMOND™ Seal Technology uses a valve with a tough diamond coating to bring you a faucet built to last up to 5 million uses. Who knew a faucet could be just as beautiful on the inside? It's one of the many ideas that make Delta® more than just a faucet.
DELTA
see what Delta can do℠
VICTORIAN®
deltafaucet.com/dst

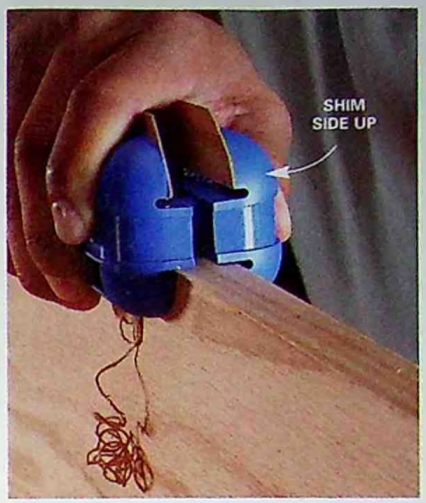

Be happily counted among underachievers.
It's time.
Time to escape.
Time to unwind.
Every single electronic device that's preprogrammed to suck every single last cell from your already overtaxed brain — at the end of the day — even they get recharged.
And so do Trex® owners.
Freed from the boundaries of limited design options, free from the hassles and high maintenance of wood decking, they're all too content nestled in the comfort of their very own charging stations.
No texts. No e-mails.
No problems.
HOW OUTDOOR LIVING SHOULD FEEL.
Genuine Trex
ONLY GENUINE TREX®—ALWAYS ON TREX.COM, OR 1-800-BUY-TREX.

Use a trimmer on edges

The quickest and easiest way to trim the edge banding flush to the plywood is with a special edge banding tool, such as the FastCap trimmer shown here (No. 836877; $20 at Woodcraft stores or online at woodcraft.com).

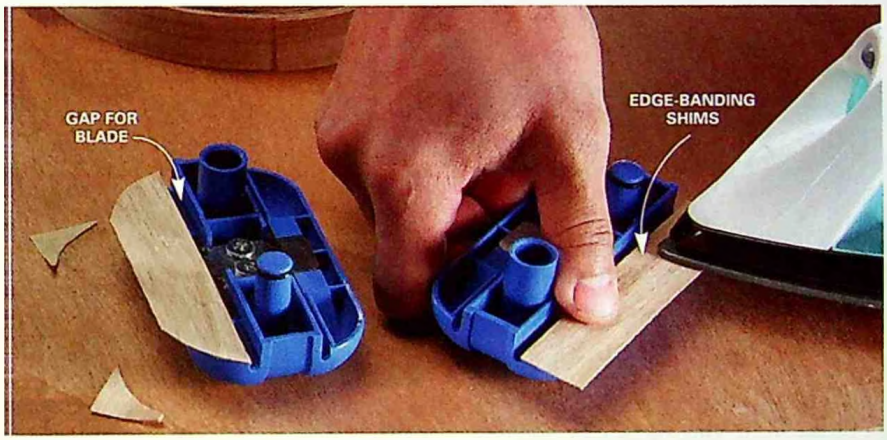
Make a shallow pass first

Trim with the shimmed side first. Since less veneer is being removed with this side of the trimmer, the likelihood of runaway splits is greatly reduced. Start at one end and squeeze the trimmer until the shims are against the plywood. Then press down and slide the trimmer along the edge. Thin strips of veneer will peel away from both edges.



Flip the trimmer for the final pass

Flip the trimmer over and use the unshimmed side for a final trimming. When you're through, the edge banding should be almost perfectly flush with the plywood. If you missed any spots, just make another pass or two with the trimmer. The final sanding will remove the sharp edge and any remaining overhang.



Modify your trimmer

Trimming the overhanging edges flush to the plywood without damaging the edge banding can be tricky. If the trimming blade catches in the wood grain, it can split the thin veneer and you'd have to start over. Prevent that headache by shimming one side of the trimmer with strips of edge banding so that it doesn't cut as deep. Just "tack" the shims on with the iron, making sure to leave a gap where the blades are. Since this trimmer has two cutting sides, you can leave the shims on one side to make the initial pass, and then just flip it over to make the final pass.

A little goes a long, long way.

We get it. Downtime is hard to come by. And building a new deck is a major investment in both time and money. So make the most of what you already have — remake your deck with Trex® decking. Your existing boards can be replaced with Trex and by adding our railing, you'll fall in love with your perfect outdoor escape — all over again. Visit trex.com for ideas and inspiration.

Genuine Trex

HOW OUTDOOR LIVING SHOULD FEEL.

AVAILABLE AT

LOWE'S

Let's Build Something Together

FOR OTHER PROFESSIONAL LUMBER RETAILERS, GO TO TREX.COM OR CALL 1-800-BUY-TREX.

©2009 Trex Company, Inc. All rights reserved. Lowe's and the gable design are registered trademarks of LF, LLC

The Best Thing To Happen To Weekend Work

SINCE WHEELBARROWS.

RATES AS LOW AS 0% FOR 12 MONTHS

Whether you're mowing or moving dirt, hay, mulch, fertilizer, firewood or other materials; or into more serious digging and tilling, you owe it to yourself to test drive a KIOTI.

With user-friendly controls, just the right implements and powerful yet fuel-efficient engines from 22 to 90 horsepower, tough work gets real easy with a KIOTI tractor.

KIOTI will put their tractors up against any other in town. And to back them all up, we offer the only 4-Year, Full-Fleet Warranty in the business. Check one out at your KIOTI dealer today. Or log onto www.KIOTI.com.

*See your local dealer for full details or visit www.KIOTI.com for current promotional rates.

KIOTI

run ahead of the pack

1-877-GO-KIOTI • www.KIOTI.com

Brighten every day!

ENERGY STAR

Solatube® Daylighting Systems are the affordable way to brighten dark rooms.

- Installs in just 2 hours
- Leak-proof design
- Turn off the lights
- Save energy

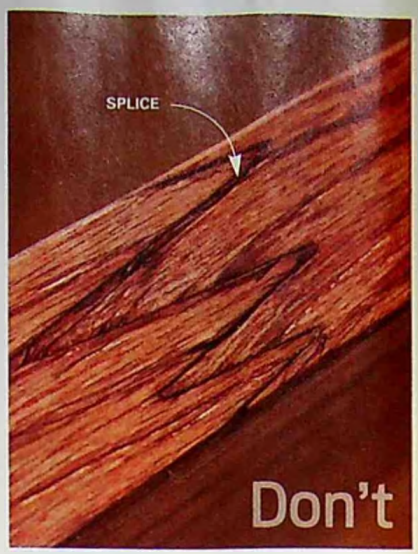
Go to www.ilovedaylight.com or call (888) 345-0945 today.

SOLATUBE

Innovation in Daylighting.

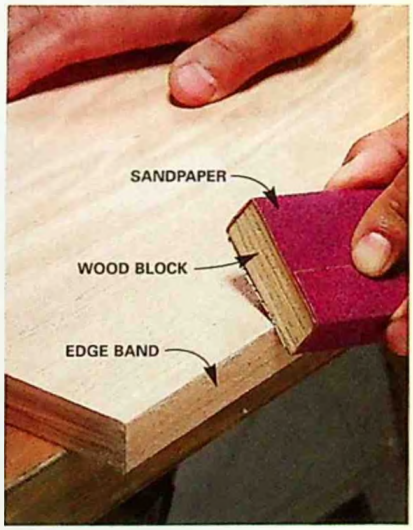
Make Green by Selling a Green Product

Become a Solatube® Premier Dealer: NO Franchise Fees, Free Training, Proven Business System. Visit www.solatube.com/dealer or call (888) 866-1725



Don't leave a splice where it'll show

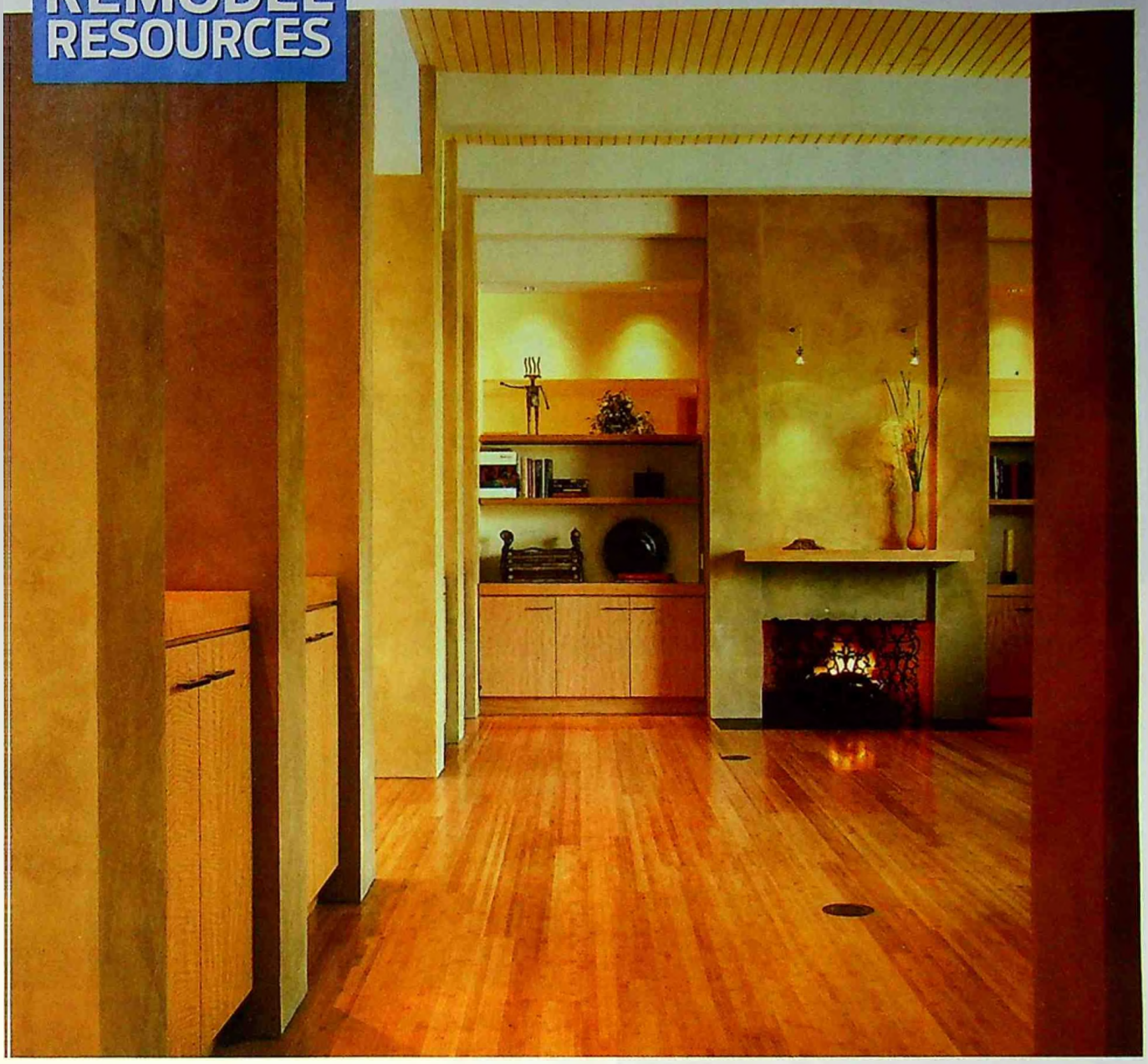
Splices can be hard to see on raw edge banding, but they may be highly visible after stain is applied. Inspect the edge banding before you cut it to length so you can cut around splices and avoid surprises later. Avoid waste by using spliced pieces in less visible areas.



Touch up with a sanding block

After you trim them, the edges will be sharp. Ease them with 150-grit sandpaper on a sanding block. Hold the sanding block at a slight angle and smooth out the edge. Sand gently and inspect the edge often to avoid sanding through the thin veneer.

by Elisa Bernick
editors@thefamilyhandyman.com



Greener bamboo flooring

Bamboo is considered a sustainable flooring material because it's a grass that grows quickly. Oak takes decades to grow to maturity, while bamboo can be harvested in three short years. Despite those "green" credentials, most bamboo flooring uses a urea-formaldehyde (UF) glue in the lamination process that's considered to be a human carcinogen. The amount of UF used in bamboo flooring is small compared with the levels found in materials like particleboard and MDF, but even when low, UF emissions can cause eye and throat irritation in sensitive people. In higher concentrations, they can cause nausea and asthma.

PlybooPure is a new line of formaldehyde-free bamboo flooring products manufactured by Smith & Fong. With its durability, easy installation and natural beauty, PlybooPure is an excellent flooring choice for health-conscious homeowners. PlybooPure is 100 percent bamboo—no fillers. It's available unfinished, or prefinished in a natural or amber color. The average price of PlybooPure edge-grain and flat-grain bamboo flooring is about $4 per sq. ft. For more information and to find state-by-state dealer locations, check out the Web site.

plyboo.com, (866) 835-9859

Art Direction BECKY PFLUGER

GLASS TILE STORE

Affordable glass tile

Glass tile is eco-friendly and makes gorgeous backsplashes, countertops and bathroom walls, but it typically costs $30 to $60 per sq. ft. Here's a site that's easy on your eyes—and your budget. GlassTileStore.com stocks and ships more than 300 unique styles for just $12 to $20 per sq. ft. ($6 for closeouts!). Sold in 12 x 12-in. mesh-backed sheets, the tiles are available in styles such as brick, iridescent, and stone and marble mosaics. A sample quarter sheet costs $5. The style shown is Jelly Bean Blend.

glasstilestore.com, (866) 620-8453

Fire pit tables for every budget

Move over, fire pits—fire pit tables are the hot new thing. Light a fire in the middle of the table and then set drinks and dinner around the edge. It's a perfect way to linger outside during chilly spring evenings. Prices start at $100 and head up to the stratosphere depending on whether you choose a model that heats with wood or opt for a pricier one that uses propane, natural gas or special gel fuel canisters. There are dozens of fire pit tables to choose from. A good place to start is firepits.com, which offers a range of styles and prices as well as customer reviews.

firepits.com, (800) 420-7910

THREE BIRDS

FIREPITS.COM

Candles that won't blow out

Candela lights can do everything an ordinary candle can do—except blow out in the wind or set the house on fire if left unattended. These portable, rechargeable LED lights are equally at home on the deck and on the bedside table. They light instantly when lifted from the charging platter and start recharging as soon as they're put back. The lights, which last up to eight hours on a charge, turn on automatically during power failures. They are available in sets of two, four and eight in a variety of styles ($39 to $129).

vessel.com, (877) 805-1801

APC Back-UPS ES 750G is the energy conscious choice. Save up to $40 per year* on your electric bill.

SmartShedding™ Technology

Allows the master outlet to sense when your computer has either been turned off or has gone into sleep mode, so it can shut off power to peripherals plugged into the controlled outlets–saving you power and money.

Enviably Green.

Uses up to 5x less power in normal operation than any other battery backup.

Let's protect what's important.

What's in your computer? Photos, music, personal files, financial data, broadband access, videos, and more. Your computer has never been more important, and yet it has never been at higher risk for damaging power surges and other disturbances.

So like most people, you need to protect your assets. But like most people, you'd also like to protect the environment. With our new energy conscious products, you can do both. Energy efficient by design, our new smart products protect the power going into your computer, at a cost that is quickly offset by big energy savings. How? Not only do the new Back-UPS ES® and SurgeArrest® use power very wisely, they also boast a master/controlled outlets feature, which automatically powers down idle devices to conserve energy.

APC power protection products are available at:

BEST BUY · CDW · STAPLES · PC Connection

"The pricetag on the new UPS is $99. While I'm not in the habit of endorsing products in this blog, if you're in the market for a workstation-class UPS, why not opt for the greener option?"

- Heather Clancy, ZDNet.com

In fact, while protecting your power supply, we're up to 5 times more energy efficient than any other solution. By saving you $40 a year in energy costs, our Back-UPS ES pays for itself in 2 short years. The high frequency, low copper design has a smaller transformer and environmental footprint. Even the packaging has been carefully selected and manufactured to maximize use of recycled materials and minimize waste.

In this world, every decision you make counts. So protect your power with a battery backup that works to protect the environment. It conserves power, it pays for itself, and it's backed by APC's 20-plus years of Legendary Reliability®. For more information on this or our other great products, or for information about environmentally responsible disposal of your old battery, visit ***www.apc.com***

Energy efficient solutions for every level of protection:

Save $25 per year* on your electric bill!

Surge Protection

Starting at $34

Guaranteed protection from surges, spikes, and lightning.

7 outlets, Phone/Fax/Modem Protection, Master/Controlled Outlets

SurgeArrest® P7GT

Save $40 per year* on your electric bill!

Battery Back-UPS®

Starting at $99

Our most energy efficient backup for home computers.

10 outlets, DSL and Coax protection, Master/Controlled Outlets, High Frequency Design, 70 minutes of runtime[1]

Back-UPS™ ES 750G

APC can help with your other power protection needs. Visit apc.com to see our complete line of innovative products.

Enter to Win a Back-UPS® ES 750G! (A $99 value)

Also, enter key code to view other special offers and discounts.

Visit www.apc.com/promo Key Code h447w or Call 888.289.APCC x8162 or Fax 401.788.2797

APC Legendary Reliability®

© 2009 American Power Conversion Corporation. All trademarks are owned by Schneider Electric Industries S.A.S., APCC, or their affiliated companies.
e-mail: esupport@apc.com • 132 Fairgrounds Road, West Kingston, RI 02892 USA • 998-0987 [1]Runtimes may vary depending on load.
*Average savings are based on comparable competitive models, and are comprised of two energy saving features: an ultra efficient electrical design, and the master/controlled outlets feature.

by Brett Martin
editors@thefamilyhandyman.com

Great value combo kit

Craftsman's NEXTEC combo kit offers a 3/8-in. drill/driver, a multi-saw and an LED work light for only $150. The kit comes with two 12-volt lithium-ion batteries (which charge in 30 minutes) and a charger.

My favorite tool in the bunch is the cleverly designed multi-saw, which functions as a jigsaw and a mini reciprocating saw for tight spaces. It uses T- and U-shank saw blades (not standard recip saw blades). An electric brake quickly stops the blade when you release the trigger. Buy the kit (model No. 11890) at Sears stores or sears.com.

Craftsman, craftsman.com

CRAFTSMAN

Trust The Wood Care Specialist.

Flood® understands the importance of improving a home investment like your deck. Flood brand products make it easy to get the long-lasting protection you need, allowing you more time to enjoy your outdoor living space.

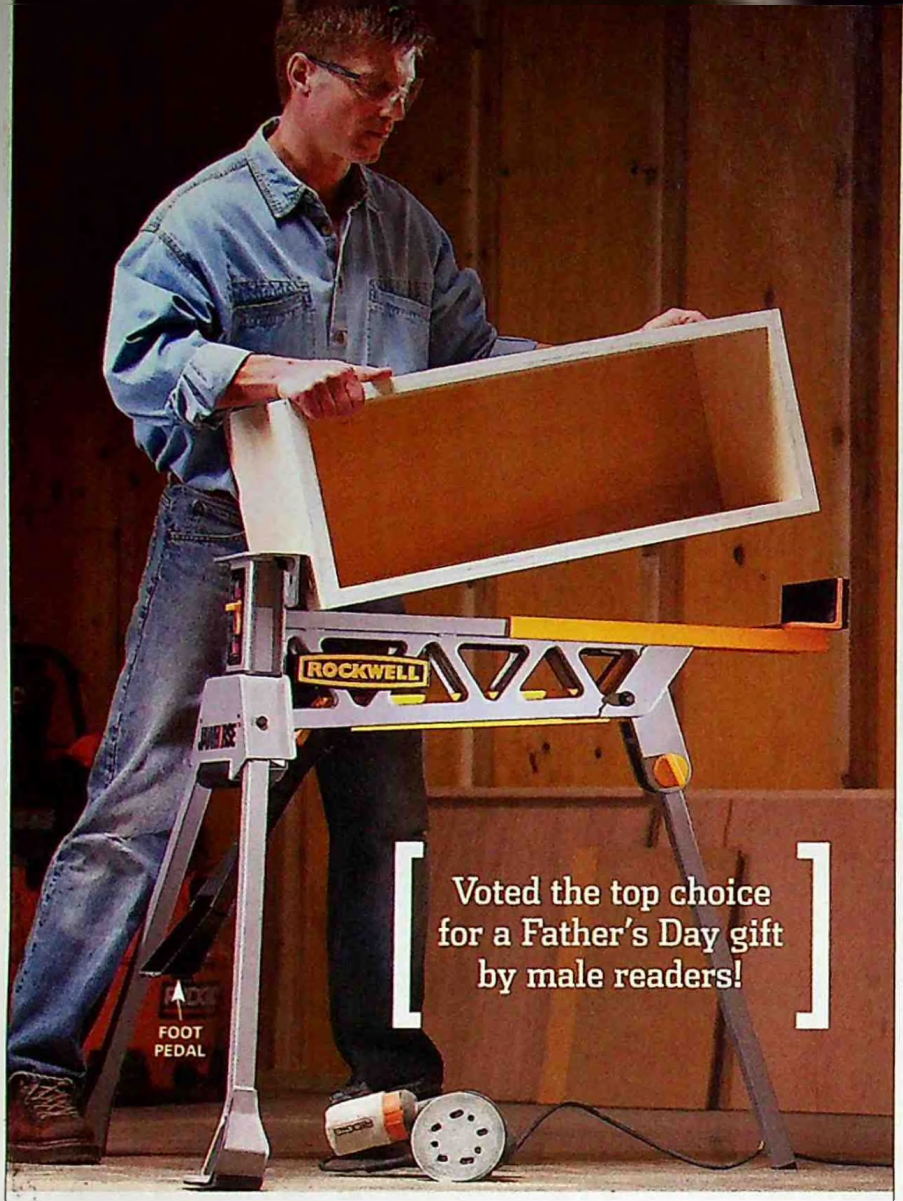
Superior penetration and adhesion is built into every Flood brand finish. And with guaranteed performance, Flood offers the best value in exterior wood care. You can be confident Flood will provide the same reliable, durable protection that professionals have trusted for years.

For your time, for your money, and for your exterior wood surfaces, Flood is the right choice.

SINCE 1841
Flood™
THE WOOD CARE SPECIALIST

1-800-321-3444 | www.flood.com

©2009 Akzo Nobel Paints LLC, All Rights Reserved. ® indicates a registered trademark of the AkzoNobel group of companies.



Voted the top choice for a Father's Day gift by male readers!

Sawhorse with hands-free clamp

Rockwell's heavy-duty Jawhorse is a sawhorse with a built-in clamp that you tighten with your foot. It's the perfect solution if you often work alone and need an extra set of hands for clamping tools, projects or lumber. The substantial 37-in. jaw width makes clamping wide projects a snap. Or clamp on a piece of plywood for an instant workbench or a platform for any portable tool.

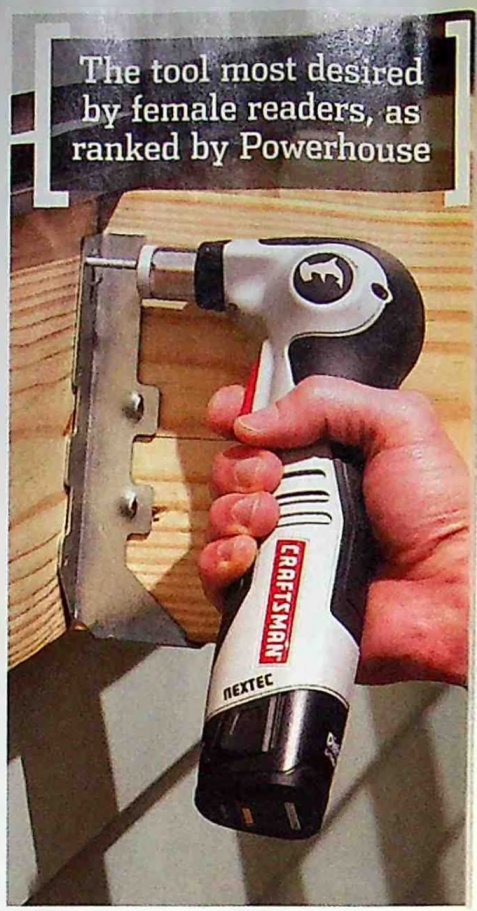
The awesome clamping power eliminates the need for a second sawhorse (in most cases). The tripod bases keeps the Jawhorse stable during use. When you're through, the Jawhorse folds up like a collapsible sawhorse. But at $180, the Jawhorse costs a lot more than a set of traditional sawhorses. Buy it on the company's Web site or amazon.com.

Rockwell, (866) 514-7625, rockwelltools.com

Readers rank 'em

Every month, the TFH "Powerhouse" reader panel has the chance to weigh in on the new tools and gear we're writing about. For more information or to join the panel, visit fhpowerhouse.com.

The tool most desired by female readers, as ranked by Powerhouse



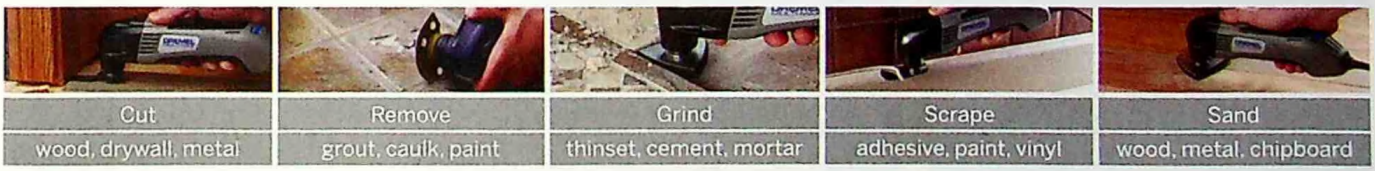
A battery-powered hammer

I realized that the Craftsman Hammerhead was popular when my local Sears store was sold out the first two times I stopped in to buy one. The 12-volt lithium-ion battery-powered auto hammer pounds in nails up to 3-1/2 in. long in seconds—the high-speed, high-torque motor delivers a whopping 3,600 impacts per minute. The magnetic head holds nails with heads up to 7/16 in. wide in place to start them, so you can keep your fingers safely out of the way. The nail sleeve automatically retracts during use to set the nail flush with the work surface.

The Hammerhead is the tool to reach for when you're working in tight spots and don't have enough room to swing a hammer, or working on a material that you don't want to mar with hammerhead dents. It's also a good tool for novices who don't feel confident using a hammer. But the Hammerhead is loud—very loud—so you'll want to use hearing protection. Buy this $99 tool (No. 11818) at Sears stores or sears.com.

Craftsman, craftsman.com

From the company that invented versatility, here's some more.



The all-new Multi-Max™ Oscillating Tool System.

Its fast side-to-side motion and compact design make it the perfect tool for even your most demanding remodeling projects. From cutting a door jamb to removing grout—and every job in between. It's exactly the kind of versatility you've come to expect from a Dremel tool. **Call 1-800-437-3635 today for a free DVD. Or visit dremel.com to view project videos.**

DREMEL® MULTI-MAX™
Repair. Remodel. Restore.

Available where power tools are sold.

Automatic watering system

If you've been manually turning on your hose and then having to remember to shut it off again after watering, check out the Vigoro Wireless Moisture Sensor & Digital Water Timer. Attach the timer to the hose spigot and stick the moisture sensor in the ground. The timer automatically turns the water on and off at preset times. The moisture sensor "talks" to the timer, so it doesn't water if the ground is already wet. The timer and sensor run on batteries.

You'll still have to move your hoses, but if you place a sprinkler in the flower garden, the sensor will take care of the rest. You can get it at Home Depot for $40. It's also available online; one source is atomicmall.com.

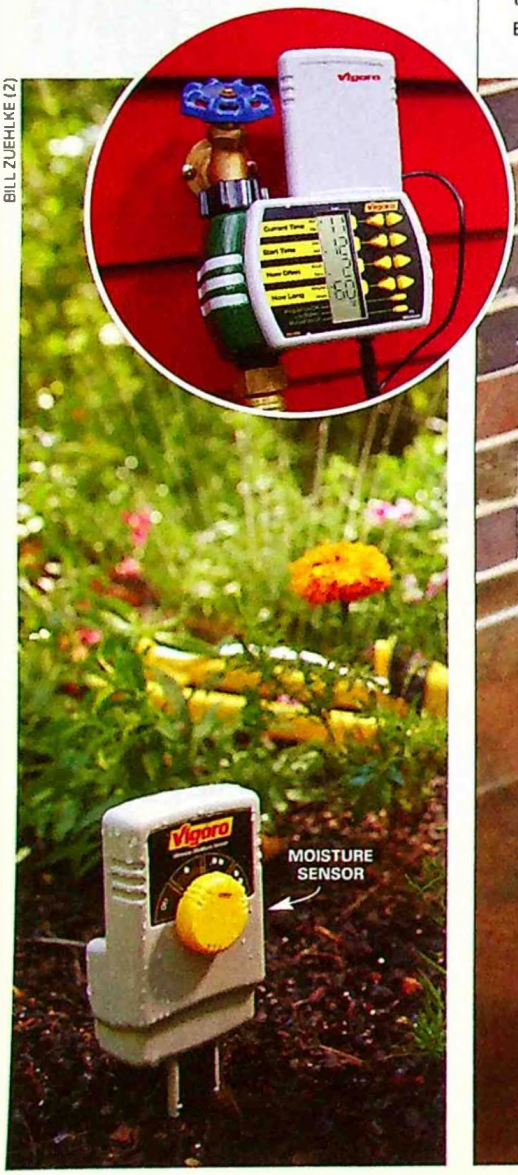
Automatic light during power outages

Energizer's Twin Light Center has a home base recharging unit with a light that automatically turns on during power outages. Once you find it in the dark, just grab one of the two "light sticks" and you can wander all over the house. The lights are always charged (provided you keep them parked in their home base). No more hunting around a dark house for candles, matches or working flashlights!

The sticks provide 5 to 10 hours of light, depending on how many bulbs (two or four) you choose. And if they go dead, you can power them with three "AAA" alkaline batteries for 18 more hours of light. Buy it at Target for $45 (No. 10849453).

Energizer, (800) 383-7323, energizer.com

BILL ZUEHLKE (2)



JOIN OUR TEAM

Join ***The Family Handyman* Powerhouse Panel**, an online community of do-it-yourselfers, and get access to special offers, discounts, and rewards, along with the chance to tell us what you think about new products, hot topics, and much more.

JOIN TODAY!
AND, ENTER TO WIN AN ALL-IN-ONE UTILITY WRENCH.

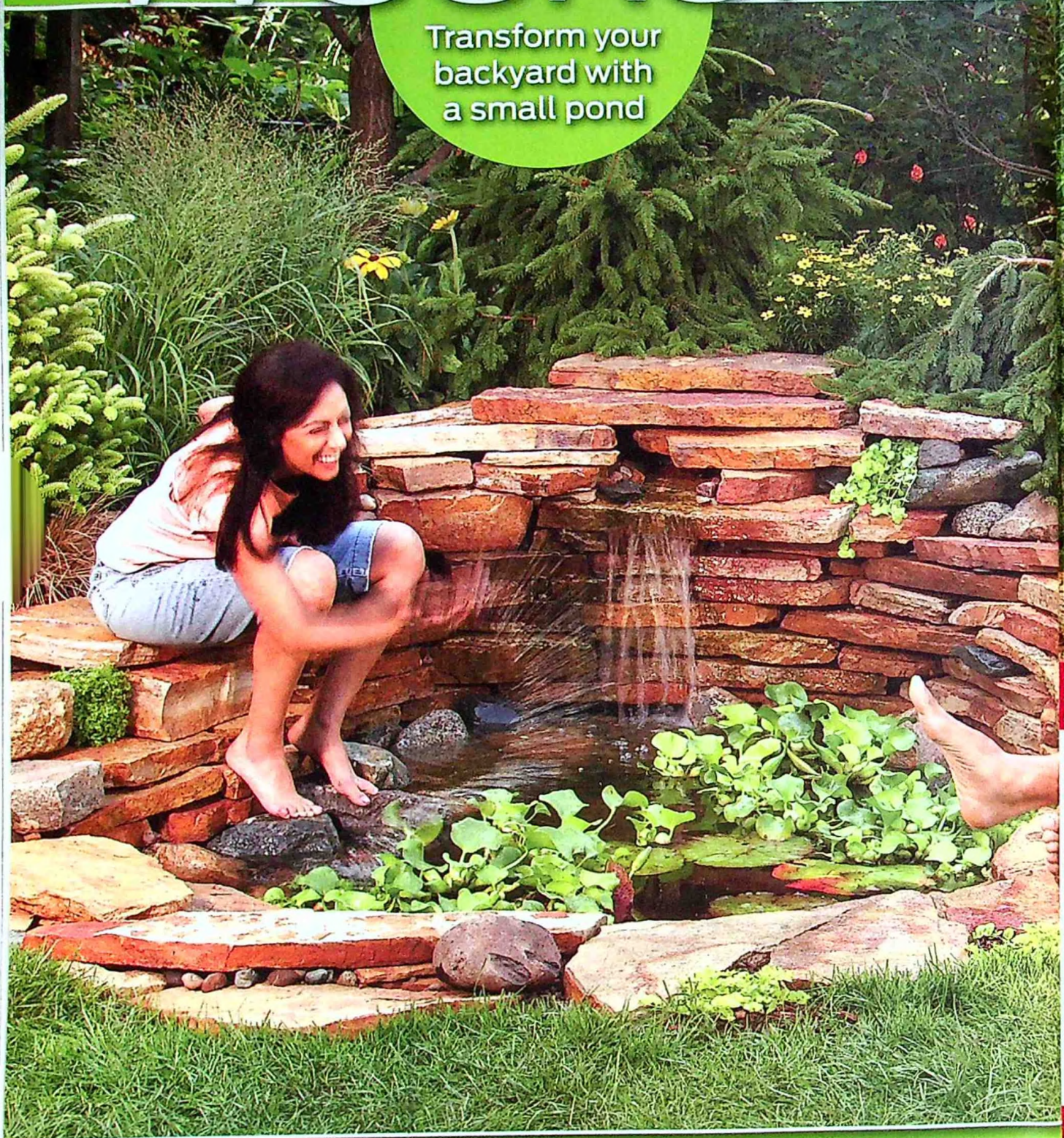
Visit **www.fhpowerhouse.com** to join and enter code MAY09.

No purchase or survey completion necessary to win. Open to U.S. residents age 18 and over. Sweepstakes begins on 3/17/09 and ends on 6/30/09. Void where prohibited. For entry details and official rules, visit www.fhpowerhouse.com/rules

THE FAMILY Handyman POWERHOUSE

Weekend

Transform your backyard with a small pond



waterfall

by Eric Smith
editors@thefamilyhandyman.com

A backyard pond doesn't have to be big to have a big impact. This pond is less than 6 ft. long and just over 4 ft. across. But with its striking stone surround and sparkling waterfall, it can become the centerpiece of any landscape.

This design is versatile, too. You can make the pond twice as large as ours or half the size. You can locate it on flat terrain or tuck the stone waterfall wall into a slope. And unlike most ponds, this one won't leave you with a small mountain of soil to deal with—you can simply use the excavated soil to form a berm behind the waterfall wall.

This pond will take anywhere from one to three weekends to complete. The size of the pond is one factor in how long it will take. But the stone you choose is also a major factor (for more on that, see "Stonework," p. 36). Our cost for the basic pond materials, including the liner, filter and pump, was about $500. The stone may be free if you can collect it yourself or it can cost up to $1,000 if you choose expensive stone at a landscape supplier.

This article won't tell you everything you should know before you grab your shovel. For a guide to pond planning, including advice on choosing a site, go to thefamilyhandyman.com/pondplanning. Electrical codes require a GFCI-protected outlet to power the pond's pump. To see how to run underground wiring and place an outlet anywhere in a yard, go to thefamilyhandyman.com and search for "outdoor outlet."

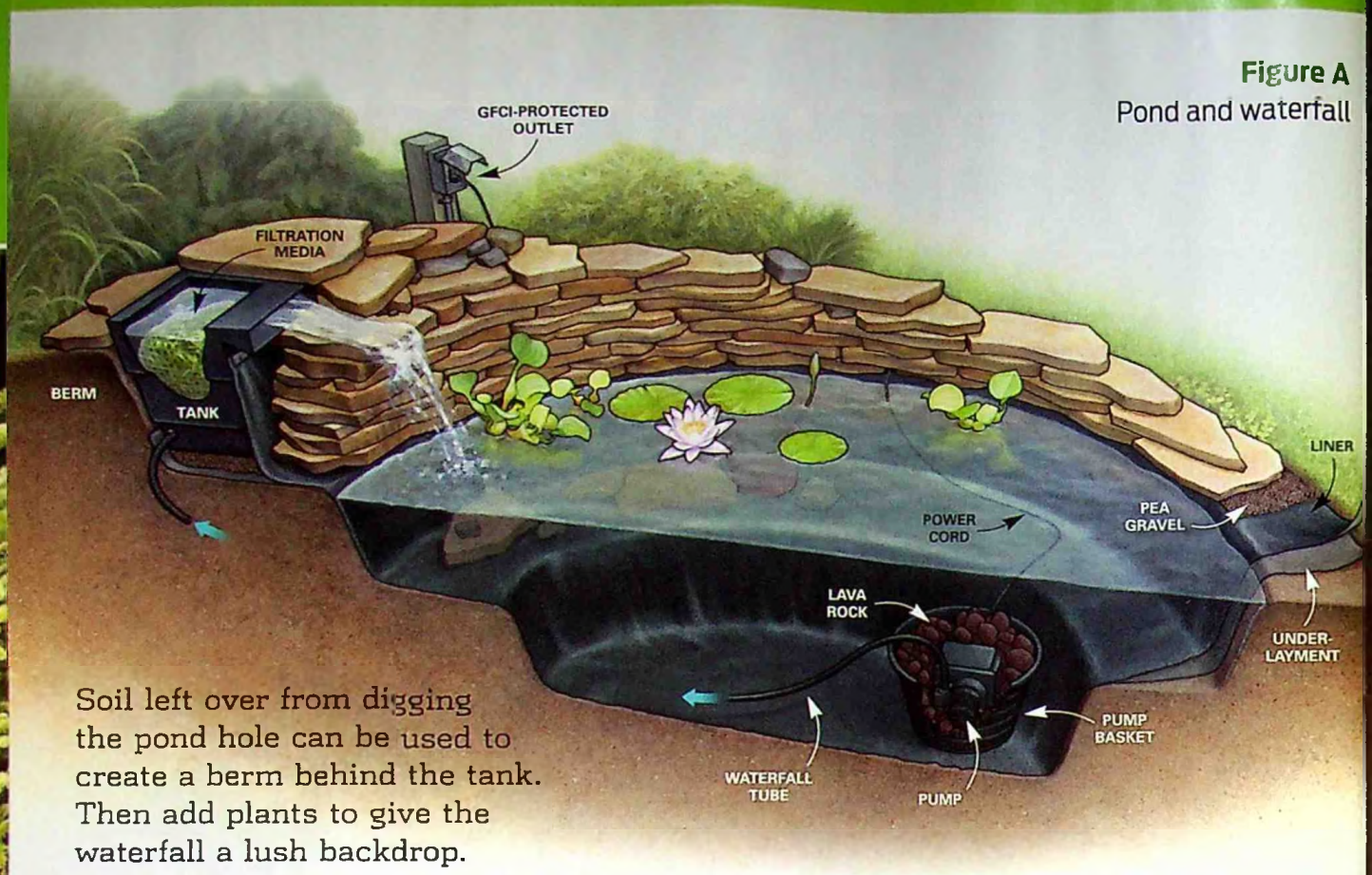


Figure A
Pond and waterfall

Soil left over from digging the pond hole can be used to create a berm behind the tank. Then add plants to give the waterfall a lush backdrop.

Dig the hole

We dug our pond in a kidney shape, but you can make yours any shape you like. To experiment with different shapes, lay out a garden hose or rope. But plan for the *total* size of your water feature. The surrounding stone will extend 1 to 2 ft. beyond the water's edge on three sides, and the waterfall wall, tank and berm will cover 3 to 4 ft. behind the pond. When you find a shape you like, cut through the sod around the perimeter with a spade to mark the shape. Then start digging.

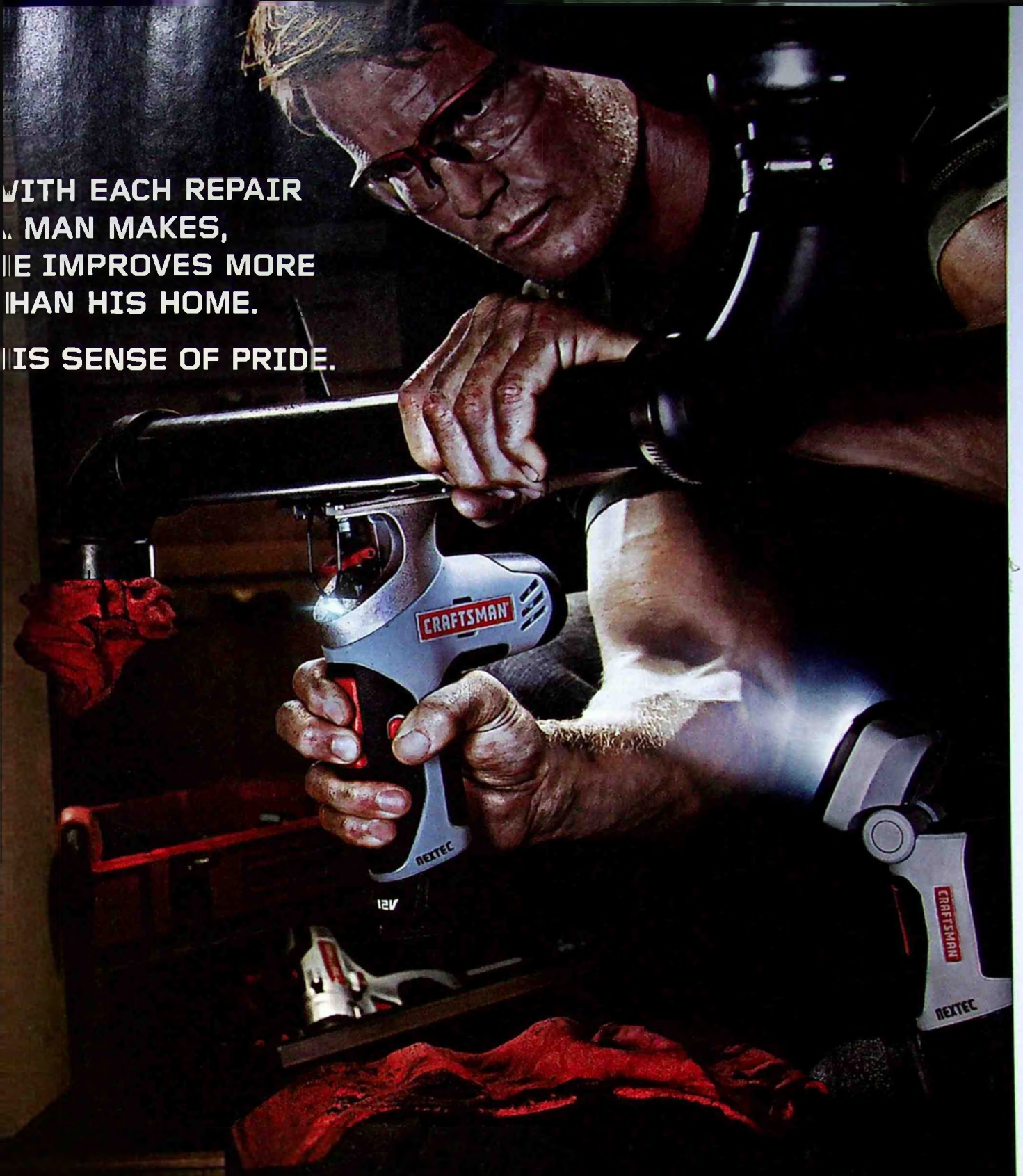
Toss the soil toward the back and sides of the pond where you'll later build up the berm. Be sure to throw the soil far enough so you don't have to move it a second time. When you reach a depth of about 1 ft., create ledges along the sides of the hole. Carve the ledges into undisturbed soil; don't try to build them from soil you've already dug up. Make the ledges at least 1 ft. wide. These ledges help prevent cave-ins and provide a shelf for plants that prefer shallow water. Slope the vertical walls of the hole slightly, about 1 to 2 in. per vertical foot. Don't make the bottom of the hole perfectly level. Instead, slope it slightly toward the end of the pond farthest from the waterfall (about 1 in. of drop per horizontal ft.). That provides a low spot where you can place the pump and make it easier to drain the pond. Level the rim of the hole so the surrounding stones will all rest at about the same height above the water level (**Photo 1**).

Bacteria clean the water

There are lots of ways to keep pond water clean and clear—chemicals, high-tech filters, UV light systems. Some pond owners skip all of these and simply change the water a few times each summer as it becomes green or cloudy. We chose a "biological" filtration system for our pond. The lava rock in the pump basket and the "filtration media" (a bag of plastic strips) in the waterfall tank simply provide plenty of surface area where bacteria can grow. The bacteria consume decaying leaves, fish waste and other stuff that would otherwise make the water murky and feed algae. In addition to being inexpensive and eco-friendly, biological filtration is easy. All you have to do is remove the filtration media twice each year and slosh it around in a bucket of pond water (tap water will kill the bacteria).

Line the hole

The pond liner is made of tough EPDM rubber, but it's not puncture-proof. So inspect the hole before you line it. Cut back any protruding roots and dig out any stones. If the soil is filled with stones, spread an inch of sand over the ledges and bottom. Next, line the hole with "underlayment," a thick synthetic fabric that cushions the liner against damage.



troducing the exclusive **Craftsman NEXTEC™ 12-Volt Lithium Line** – a set of three versatile ools, all powered by a long-lasting lithium-ion battery, designed to make every project easier. e lightweight set comes complete with a powerful 2-speed Drill/Driver, compact Multi-Saw, d 24-bulb LED Work Light. Making sure all the power to tackle any job is right where it belongs. your hands. For tools and advice from America's Most Trusted Tool Brand, visit the Garage Knowledge™ at craftsman.com

008 Sears Brands, LLC

THERE'S A CRAFTSMAN IN ALL OF US

CRAFTSMAN®
craftsman.com

1 Dig the pond hole. To form a level rim, scrape away soil on the high side and build a bank on the low side. Compact built-up soil with a tamper.

2 Line the hole with underlayment fabric and the rubber liner. The underlayment cushions the liner against punctures from stones or roots.

3 Smooth out the liner as the pond fills. Tug out wrinkles and form neat folds. But don't be too fussy—a perfectly smooth fit just isn't possible.

4 Surround the pond with stones. Leave a gap between stones so you can remove the waterfall supply tube if necessary. Do the same for the pump's power cord.

Overlap sections of underlayment by about 6 in. and run the underlayment at least 1 ft. beyond the rim of the pond.

Lay the rubber liner over the pond and then push it down so it roughly conforms to the inner shape of the hole. Kick off your shoes and work in your socks when you're on the liner to avoid puncturing it. Make sure the liner extends at least 1 ft. beyond the edge of the pond on three sides. On the waterfall side, you'll need enough excess to reach the height of the waterfall. You'll run that extra length of liner upward behind the stone to keep water in and soil out. When the liner is in position, start filling the hole with water, and work out the wrinkles as the pond fills (**Photo 3**). Once water covers the liner, the pressure won't allow any "dewrinkling," so stay on top of the task. Most important, don't leave any gaps between the soil and the liner.

Stonework

Surrounding the pond with stone can take just a few hours or a whole weekend, depending on two things: First, it depends on the shape of the stone you're using. Stone with flat surfaces, like the flagstone we used, stacks up quickly. Rounded or irregular stone requires lots of trial-and-error puzzle fitting and triples the work. The second variable is neatness. We chose a rough, informal look, with protruding stones and fairly wide gaps between them. A more formal, even and uniform look will take a lot longer to achieve.

Before you begin, lay out the stones and hose them off to keep dirt out of the pond. Set aside three or four large, flat stones as options for the waterfall ledge and the cap that will cover the waterfall box. Then surround the pond with stone, overhanging the water by a couple of inches to hide the liner (**Photo 4**). Use fairly large stones that can't get accidentally kicked into the water. You can set stones directly on the liner, but a 1-in. layer of gravel makes leveling the stones much easier. Be sure to use rounded "pea gravel" rather than gravel containing sharp pebbles. We laid two courses of stone at the front of the pond, but one layer of large stones is enough to hold the liner in place.

thefamilyhandyman.com
Cast a concrete fountain using inexpensive concrete mix and a homemade form. See how at thefamilyhandyman.com/concretefountain.

AUTOMATIC HOME STANDBY GENERATORS

PROTECT THE THINGS THAT MATTER MOST

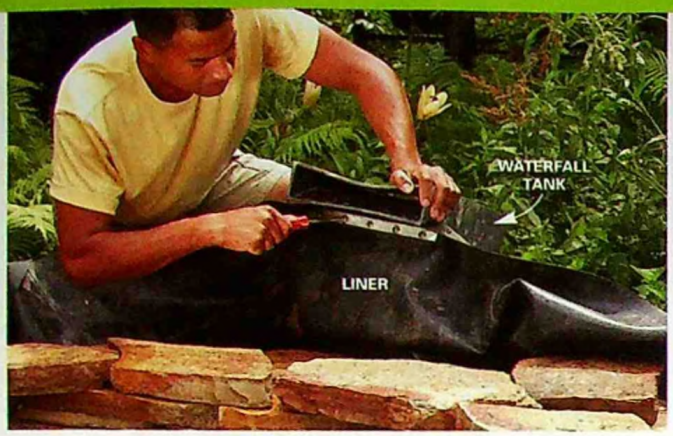
life is better with power

Generac automatic standby generators provide peace of mind for you and your family. Every Generac Guardian Series generator offers 24/7 power protection, hands-free operation and the easiest installation available. Prices starting under $2,000. Visit your favorite home improvement retailer or locate a Generac Dealer from our national network.

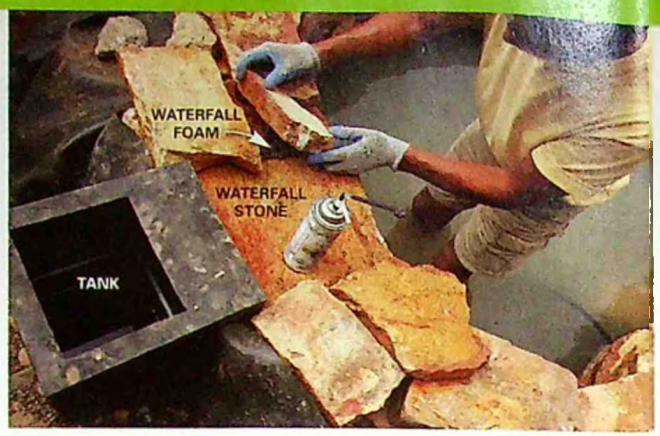
GENERAC®

1959-2009 50 YEARS

generac.com | 888-GENERAC
1-888-436-3722



5 Fasten the liner to the waterfall tank. Better tanks include a metal strip that forms a tight seal.



6 Form the waterfall with a large, flat stone. Set the side stones over foam sealant so water won't flow sideways into the waterfall wall.

As you build the waterfall wall, loosely drape the liner up against the stone and pile soil against it. When you reach the desired height of the waterfall, connect the supply tube to the waterfall tank and attach the liner to the tank (**Photo 4**). Next, set the waterfall ledge stone in place. Slowly pour a bucket of water over it to make sure the water flows off and into the pond. If the stone needs more tilt, shim it with chips of stone.

Set the tank in place over well-packed soil or stones, with the outlet resting on the waterfall ledge. Then build up stone around the waterfall ledge (**Photo 6**). You can hide the tank with soil or stone. We used both and left one side exposed so we could easily disconnect the supply tube. That way we can pump all the water out of the pond for repairs or cleaning. Cap the tank with a stone that's large enough to cover it but small enough to move easily.

Connect the pump to the supply tube, set in a pump basket and add lava rock. The lava rock provides a home for bacteria and keeps debris out of the pump. Set the pump and basket at the end of the pond farthest from the waterfall. That way, water will circulate through the entire pond before being pumped back to the waterfall. Place the filtration bag in the waterfall tank and start up the pump. Watch the water flow at the waterfall. Some of the water may run back along the underside of the ledge stone instead of falling directly into the pond. If so, create a drip line by running a bead of clear silicone caulk along the underside of the stone about an inch from the edge. If the water is dirty, disconnect the tub from the waterfall tank, pump out as much as possible and refill the pond. If the water is still a bit murky, just give the filtration system a few days to do its job.

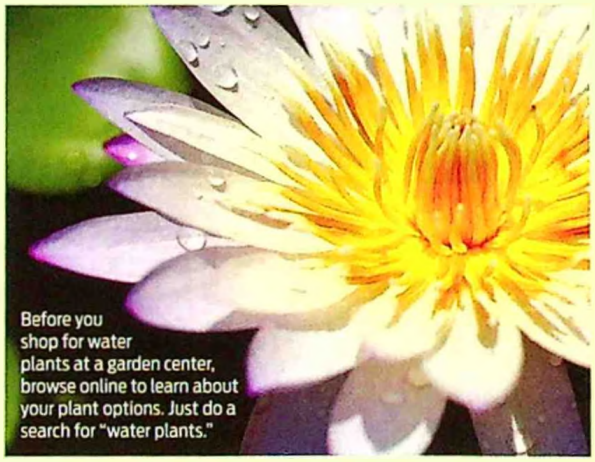
thefamilyhandyman.com

Visit our Web site for more water features for your yard:

- See how to build a small waterfall without a pond at thefamilyhandyman.com/waterfall.
- Build a Japanese-style pond and waterfall. Go to thefamilyhandyman.com/formalpond.

Choosing materials

Most home centers carry only a small range of pond supplies. For the best selection, visit a large garden center or landscape supplier. To get acquainted with the vast array of choices, go online and search for "pond supplies." Here's what you'll need:



Before you shop for water plants at a garden center, browse online to learn about your plant options. Just do a search for "water plants."

EPDM rubber liner: Make sure the material is at least 45 mil thick. To estimate the size, add twice the depth of the pond to the length and width. Then add 3 ft. to both the length and the width. Finally, add the height of the waterfall to the length. Our liner cost $180.

Underlayment: This felt-like synthetic material provides a protective cushion under the liner. Buy the same amount of underlayment as liner. We spent $60.

Pump: Pumps are sized by the amount of water they can move, measured in gallons per hour (gph). One way to select the size is to plan on 100 gph for each inch of waterfall width. We wanted a 5-in.-wide stream of falling water and chose a 500-gph pump, which cost $100.

Miscellaneous: 12-in. waterfall tank, filter media, pump basket, lava rock, black foam pond sealant, silicone caulk, pea gravel, tubing and connectors sized for your pump. Altogether, we spent $150 on miscellaneous materials.

available at LOWE'S
Let's Build Something Together

NOW THE COLORS OF LIFE CAN LAST A LIFETIME

We've brought great coverage, exceptional durability and a lifetime guarantee to all the best colors in the world. Discover more at **valspar.com**

the beauty goes on®

COLOR USED: ROASTED CHESTNUT 3002-3A © 2009 Valspar Corporation. All rights reserved. Lowe's and the gable design are registered trademarks of LF, LLC

fix your dryer

Save at least **$80**

You can solve most problems yourself—no experience necessary!

by Rick Muscoplat
editors@thefamilyhandyman.com

If your dryer breaks down, here's the first thing to know: You can solve most dryer troubles yourself. There's no need to find a technician, schedule a service call or pay $80 to $200 for repairs.

The fixes we show in this article correct about 90 percent of dryer breakdowns. Most repairs take about an hour, but set aside extra time to locate replacement parts. To find parts, check the yellow pages or search online for "appliance parts." Aside from basic tools like a socket set and screwdrivers, you may need a continuity tester or multimeter to diagnose the problem.

Art Direction MARCIA ROEPKE • Photography TOM FENENGA • Consultant COSTAS STAVROU, NICOLLET APPLIANCE CENTER

Who needs a Picasso on the wall, when the right Valspar paints, glazes and tools can transform any wall into a work of art?

PAINT LIKE A pro

Whether you're a pro—or a homeowner looking for pro results—faux painting will add pizzazz to any room!

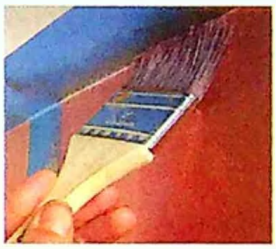
GETTING STARTED

Paint perks up a room, but faux paint turns walls into works of art. The process involves the use of special paints, glazes, tools and techniques to create a distinctive look—and there are dozens of options. You can create the look of brushed suede, textured stone, old world plaster, mottled clouds or shimmering metal. Here we show the basics for sponge painting overlapping squares. Visit **valspar.com** for dozens of tips, techniques and color schemes.

WHAT YOU NEED

Most techniques involve applying a special glaze (or glazes) over a solid coat of base paint. Glazes dry slowly, giving you more time to sponge, brush, comb and texture them.

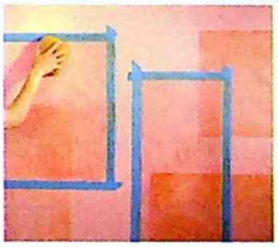
To create the overlapping square effect shown, begin by mixing glazes together to produce two or three shades of color.



GETTING STARTED

Use masking tape to create a random pattern of non-adjacent squares, then apply the first glaze color with a paint brush.

Work one square at a time until you feel comfortable with the process. You may want to faux paint just one wall to create a focal point.



PERSONALIZE YOUR PROJECT

Use sponges in a patting motion to partially remove glaze to create a mottled effect. Natural sea sponges, with their unique texture, help create a random pattern.

Wait 24 hours, then mask off a new set of squares and repeat the process with a different shade of glaze. Continue until your wall is finished.

DYNAMIC RESULTS

Faux painting requires an artistic touch—so perfect your artistic techniques on scraps of drywall or even the back wall of a closet before going to work on the final "canvas." Step back from time to time to get an overall view of the pattern and color combinations.

And remember the beauty of this project: faux painting can add character to any room.

Visit your local Lowe's store to experience thousands of colors and purchase Valspar® paint. For your nearest retailer visit valspar.com.

available at LOWE'S

the beauty goes on®

Dryer disassembly

Most dryer repairs require some disassembly of the outer cabinet so you can get at the parts inside. If your dryer's lint filter is inside the front door (**Figure A**), disassemble it this way: First, remove the screws at each corner of the control panel. Flip the panel up and back to expose the screws in the top panel. Remove the screws, then pull the top toward you and lift it off. To open the bottom panel, release the spring catches by shoving a putty knife into the slot just above them. With the bottom panel open, you can remove the front panel by removing two screws at the top and two at the bottom.

If your filter slides into the top of the dryer, remove the screws alongside the filter slot. Using a putty knife, release the two spring catches located under the top panel at the front. Tilt the top panel up like a car hood and remove the screws that hold the front panel in place.

tip

The first step in any appliance repair is to make sure it's getting electricity. Unplugged cords and tripped breakers are a leading cause of appliance "breakdowns."

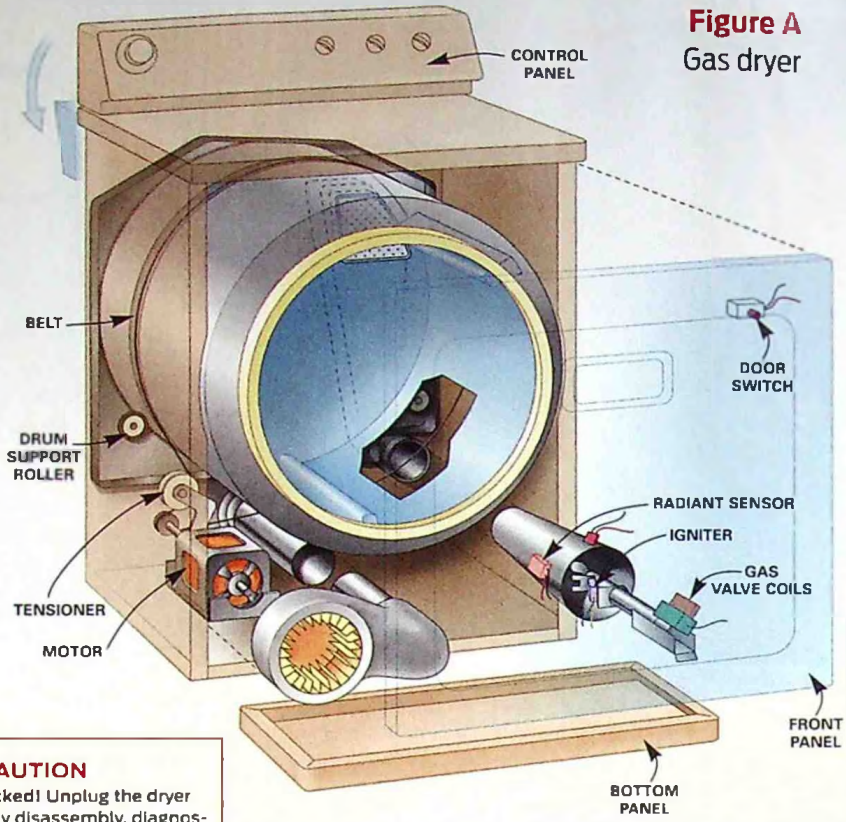


Figure A
Gas dryer

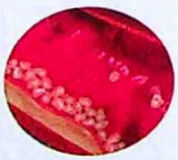
CAUTION

Don't get shocked! Unplug the dryer before you do any disassembly, diagnostic or repair work. On a gas dryer, also turn off the gas supply shutoff valve.

Using a continuity tester

Our photos show using a multimeter ($25) to diagnose trouble. But a continuity tester ($5) will also work for all the troubleshooting in this article. To use a continuity tester, simply attach the clamp to one contact point and touch the probe to the other. If the light glows, you've got continuity. If not, you've got trouble.

You may be feeling better, but your risk of a future heart attack or stroke never goes away.



Help stay protected with PLAVIX.

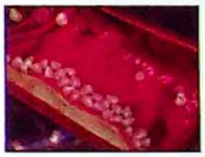
Please see important product and prescribing information on following pages

sanofi aventis Bristol-Myers Squibb
sanofi-aventis U.S. LLC

You'll never forget that day.
PLAVIX can help keep you from going through it again.

PLAVIX can help save lives for those who've had a heart attack caused by a completely blocked artery.

Clots that block off arteries are the main cause of heart attack. And now that you've had a heart attack you are at a greater risk of having another that can be fatal. That's why your doctor may put you on PLAVIX, along with your other heart medicines. Taking PLAVIX with your other heart medicines goes beyond what other heart medicines alone can do to keep blood platelets from sticking together and forming dangerous clots.



IMPORTANT INFORMATION: If you have a stomach ulcer or other condition that causes bleeding, you should not use PLAVIX. When taking PLAVIX alone or with some other medicines including aspirin, the risk of bleeding may increase so tell your doctor before planning surgery. And, always talk to your doctor before taking aspirin or other medicines with PLAVIX, especially if you've had a stroke. If you develop fever, unexplained weakness or confusion, tell your doctor promptly as these may be signs of a rare but potentially life-threatening condition called TTP, which has been reported rarely, sometimes in less than 2 weeks after starting therapy. Other rare but serious side effects may occur.

Ask your doctor how PLAVIX can help increase your protection against future heart attack, stroke, and even death.

To learn more about heart attacks and PLAVIX, visit www.plavix.com or call 1-800-378-1452.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

See important product information on the following page.

If you need help paying for prescription medicines, you may be eligible for assistance. Call 1-888-4PPA-NOW (1-888-477-2669), or go to www.pparx.org

Partnership for Prescription Assistance

ONCE-A-DAY
Plavix®
(clopidogrel bisulfate) 75mg tablets
Protection that helps save lives.

sanofi aventis Bristol Myers Squibb US.CLO.09.01.071/March 2009 264US08AB49204 sanofi-aventis U.S. LLC

© 2009 Bristol-Myers Squibb/Sanofi Pharmaceuticals Partnership

Plavix®
(clopidogrel bisulfate) 75mg tablets

WHO IS PLAVIX FOR?
PLAVIX is a prescription-only medicine that helps keep blood platelets from sticking together and forming clots.

PLAVIX is for patients who have:
- had a recent heart attack.
- had a recent stroke.
- poor circulation in their legs (Peripheral Artery Disease).

PLAVIX in combination with aspirin is for patients hospitalized with:
- heart-related chest pain (unstable angina).
- heart attack.

Doctors may refer to these conditions as ACS (Acute Coronary Syndrome).

Clots can become dangerous when they form inside your arteries. These clots form when blood platelets stick together, forming a blockage within your arteries, restricting blood flow to your heart or brain, causing a heart attack or stroke.

WHO SHOULD NOT TAKE PLAVIX?
You should NOT take PLAVIX if you:
- are allergic to clopidogrel (the active ingredient in PLAVIX).
- have a stomach ulcer
- have another condition that causes bleeding.
- are pregnant or may become pregnant.
- are breast feeding.

WHAT SHOULD I TELL MY DOCTOR BEFORE TAKING PLAVIX?
Before taking PLAVIX, tell your doctor if you're pregnant or are breast feeding or have any of the following:
- gastrointestinal ulcer
- stomach ulcer(s)
- liver problems
- kidney problems
- a history of bleeding conditions

WHAT IMPORTANT INFORMATION SHOULD I KNOW ABOUT PLAVIX?
TTP: A very serious blood condition called TTP (Thrombotic Thrombocytopenic Purpura) has been rarely reported in people taking PLAVIX. TTP is a potentially life-threatening condition that involves low blood platelet and red blood cell levels, and requires urgent referral to a specialist for prompt treatment once a diagnosis is suspected. Warning signs of TTP may include fever, unexplained confusion or weakness (due to a low blood count, what doctors call anemia). To make an accurate diagnosis, your doctor will need to order blood tests. TTP has been reported rarely, sometimes in less than 2 weeks after starting therapy.

Gastrointestinal Bleeding: There is a potential risk of gastrointestinal (stomach and intestine) bleeding when taking PLAVIX. PLAVIX should be used with caution in patients who have lesions that may bleed (such as ulcers), along with patients who take drugs that cause such lesions.

Bleeding: You may bleed more easily and it may take you longer than usual to stop bleeding when you take PLAVIX alone or in combination with aspirin. Report any unusual bleeding to your doctor.

Geriatrics: When taking aspirin with PLAVIX the risk of serious bleeding increases with age in patients 65 and over.

Stroke Patients: If you have had a recent TIA (also known as a mini-stroke) or stroke taking aspirin with PLAVIX has not been shown to be more effective than taking PLAVIX alone, but taking aspirin with PLAVIX has been shown to increase the risk of bleeding compared to taking PLAVIX alone.

Surgery: Inform doctors and dentists well in advance of any surgery that you are taking PLAVIX so they can help you decide whether or not to discontinue your PLAVIX treatment prior to surgery.

WHAT SHOULD I KNOW ABOUT TAKING OTHER MEDICINES WITH PLAVIX?
You should only take aspirin with PLAVIX when directed to do so by your doctor. Certain other medicines should not be taken with PLAVIX. Be sure to tell your doctor about all of your current medications, especially if you are taking the following:
- aspirin
- nonsteroidal anti-inflammatory drugs (NSAIDs)
- warfarin
- heparin

Be sure to tell your doctor if you are taking PLAVIX before starting any new medication.

WHAT ARE THE COMMON SIDE EFFECTS OF PLAVIX?
The most common side effects of PLAVIX include gastrointestinal events (bleeding, abdominal pain, indigestion, diarrhea, and nausea) and rash. This is not a complete list of side effects associated with PLAVIX. Ask your doctor or pharmacist for a complete list.

HOW SHOULD I TAKE PLAVIX?
Only take PLAVIX exactly as prescribed by your doctor. Do not change your dose or stop taking PLAVIX without talking to your doctor first.

PLAVIX should be taken around the same time every day, and it can be taken with or without food. If you miss a day, do not double up on your medication. Just continue your usual dose. If you have any questions about taking your medications, please consult your doctor.

OVERDOSAGE
As with any prescription medicine, it is possible to overdose on PLAVIX. If you think you may have overdosed, immediately call your doctor or Poison Control Center, or go to the nearest emergency room.

FOR MORE INFORMATION
For more information on PLAVIX, call 1-800-633-1610 or visit www.PLAVIX.com. Neither of these resources, nor the information contained here, can take the place of talking to your doctor. Only your doctor knows the specifics of your condition and how PLAVIX fits into your overall therapy. It is therefore important to maintain an ongoing dialogue with your doctor concerning your condition and your treatment.

Distributed by:
Bristol-Myers Squibb/Sanofi Pharmaceuticals Partnership
Bridgewater, NJ 08807
PLAVIX® is a registered trademark.

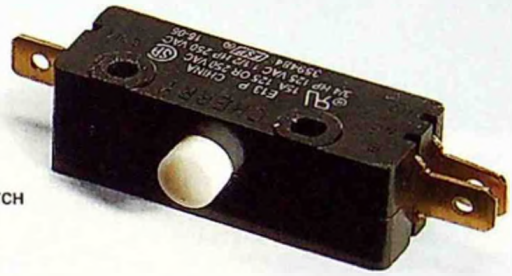
PLA-OCT07-B-Aa

sanofi aventis Bristol-Myers Squibb

Dryer won't start

If your dryer seems absolutely dead when you turn it on, chances are the door switch is bad or the plunger is broken or bent. Door switches wear out from normal use, but repeatedly slamming the door can speed up their demise. Start by checking the plunger located on the door. If it's missing or bent, replace it. If the plunger checks out, the next step is to remove the top cabinet panel to gain access to the door switch. See the disassembly instructions on p. 42.

Test the switch ($26) for continuity (see p. 42). If the switch is good, test the thermal fuse (**see photo**, p. 46) mounted on the blower housing. If you have a gas dryer with the lint filter in the door, access the thermal fuse by opening the bottom panel. If the filter slides into the top of the machine, remove the entire front panel. On an electric dryer, remove the rear service panel. If you don't get a continuity reading from the thermal fuse, do NOT simply replace it. A blown thermal fuse is a warning that you have other serious problems—either a malfunctioning thermostat or a clogged vent. Fix those before replacing the fuse ($20).



DOOR SWITCH

Pull the wires off the door switch. Open and close the door while testing for continuity. If you don't get continuity, replace the switch.

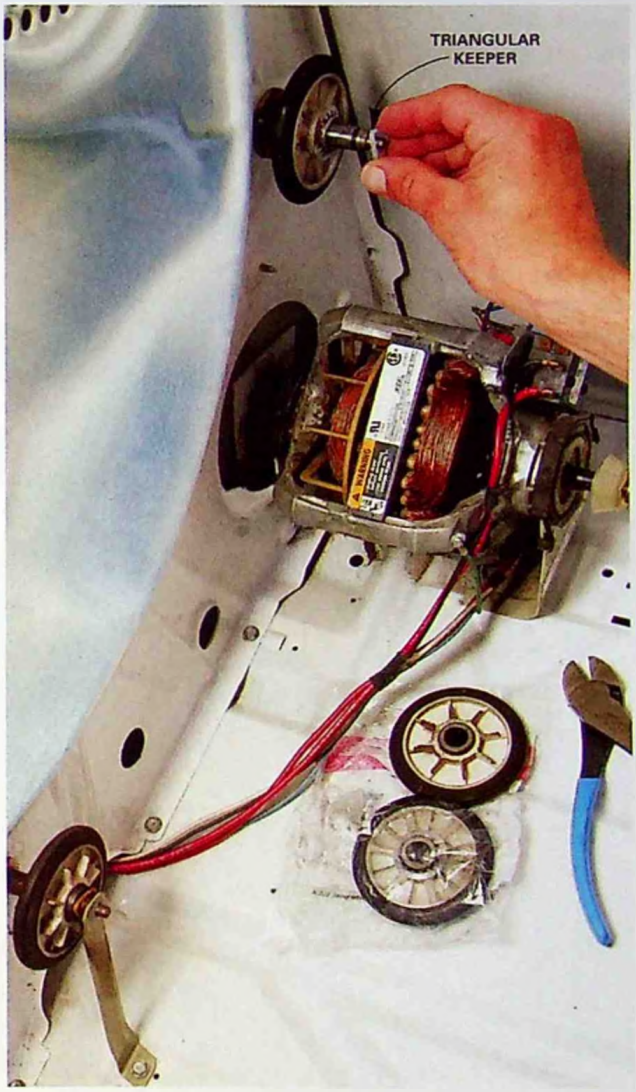
thefamilyhandyman.com

More money-saving appliance repairs:

- To solve the most common fridge troubles, go to thefamilyhandyman.com/fridgefixes.
- Repair a gas or electric range. See how at thefamilyhandyman.com/rangefixes.
- See how to fix a leaking washing machine at thefamilyhandyman.com/leakywasher.
- Fix common dishwasher problems fast. See how at thefamilyhandyman.com/dishwasherfixes.

Dryer thumps, rumbles or chirps

The drum support rollers are worn. Replace all of them ($25; **shown below**). If the noise continues, replace the tensioner roller (p. 47). Since it takes longer to disassemble the machine than to actually replace the rollers and belts, we recommend replacing both of them at the same time—total parts cost is $45.

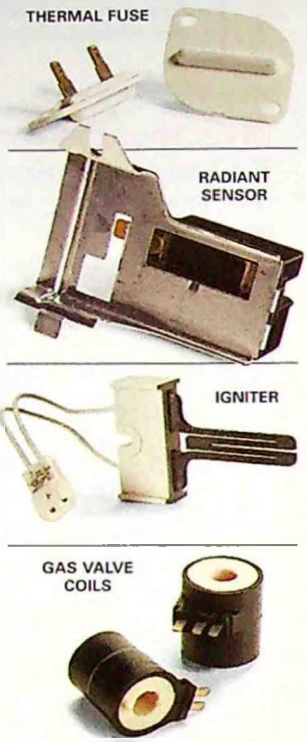


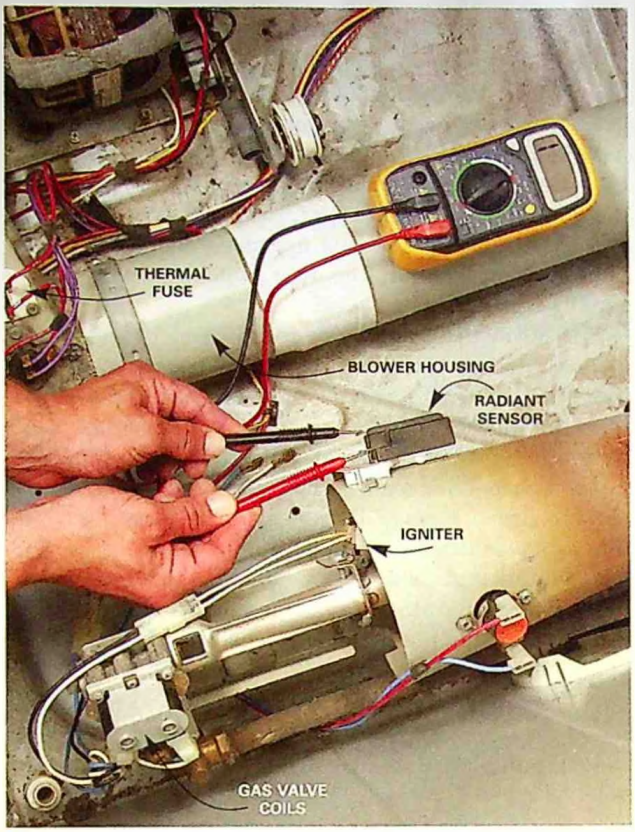
Clip off the old triangular roller keeper and remove the roller. Wipe the shaft with a rag and alcohol and install the new roller and keeper. Do NOT lubricate the shaft.

No heat

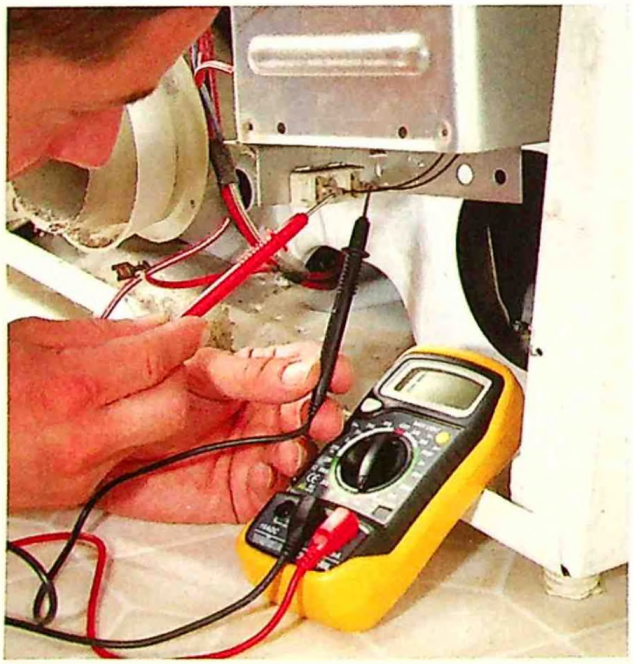
If you have an electric or gas dryer that tumbles but won't heat, check the thermal fuse for continuity. If the thermal fuse checks out, move on to the radiant sensor if you have a gas dryer. It monitors the igniter and powers up the gas valve coils when the igniter reaches peak temperature. A bum sensor will stop the whole show. Test it for continuity (**Photo 1**) and replace it if it fails ($32). If the sensor is good, disconnect the electrical connector to the igniter and check it for continuity. Again, replace it if it fails the continuity test ($40). If both the radiant sensor and the igniter pass the test, replace the gas valve coils ($30 per set). To replace them, remove the retaining plate, unplug the sensors and pull them off the gas valve.

If the thermal fuse on your electric dryer checks out, test the heater element for continuity. Replace the element ($55) if you don't get continuity (**Photos 2 and 3**).

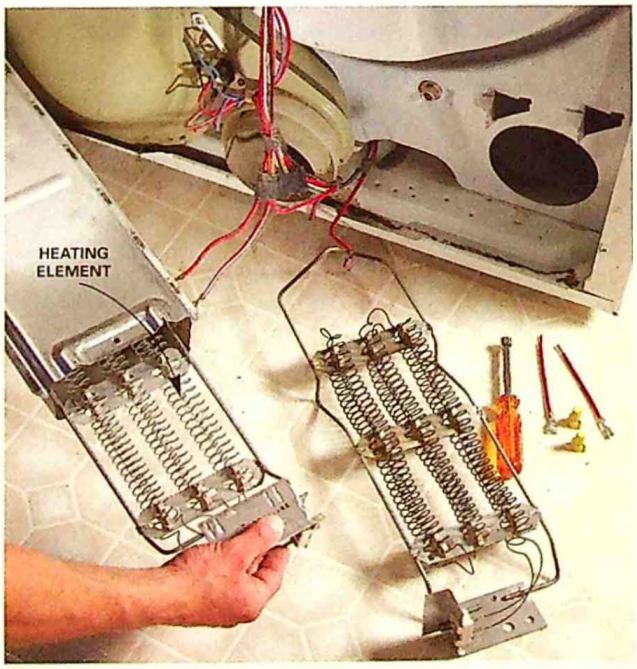




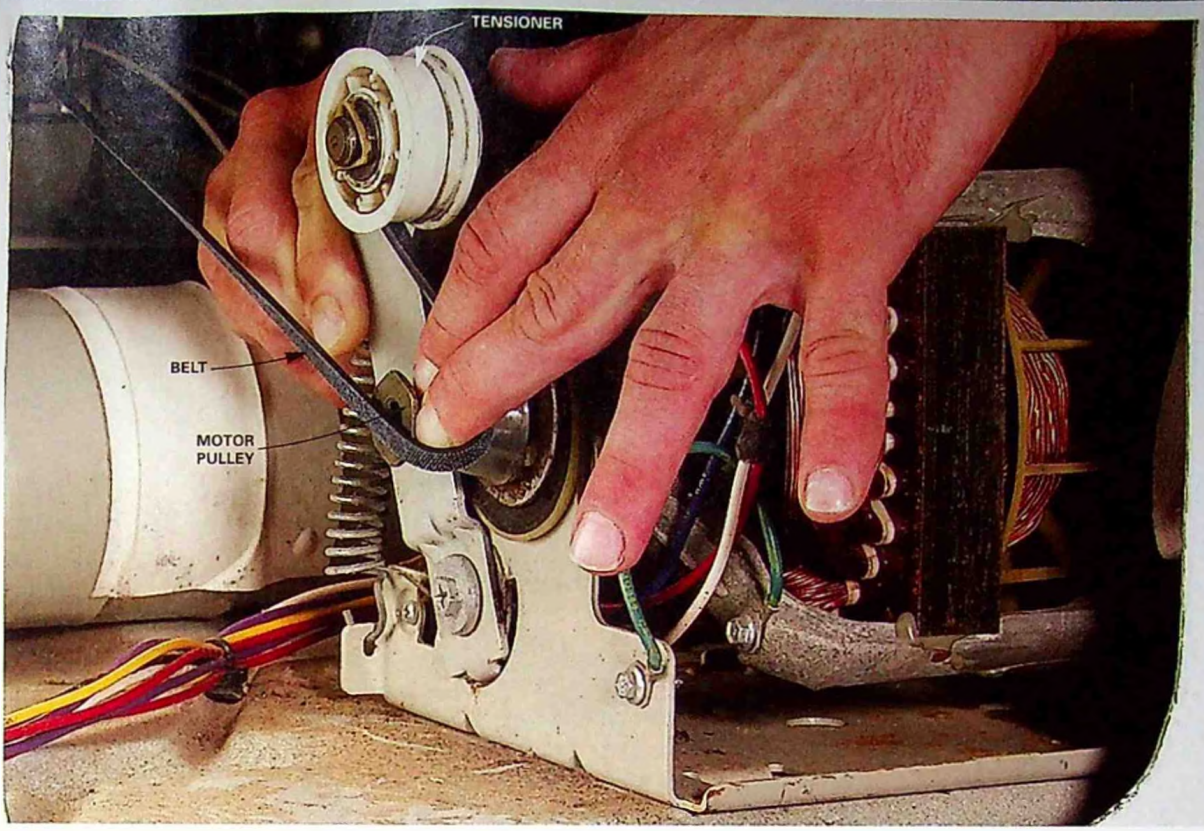
1 On a gas dryer, test the radiant sensor, igniter and thermal fuse by disconnecting the wires and checking for continuity. Replace them if they fail the continuity test.



2 Disconnect the wires to the heating element of an electric dryer and test it for continuity. Replace the element if you don't get a continuity reading.



3 Replace the bad heating element on an electric dryer by unscrewing the retaining clip at the top of the heater box. Then pull out the box and remove the element retaining screw. Swap the elements and reinstall.

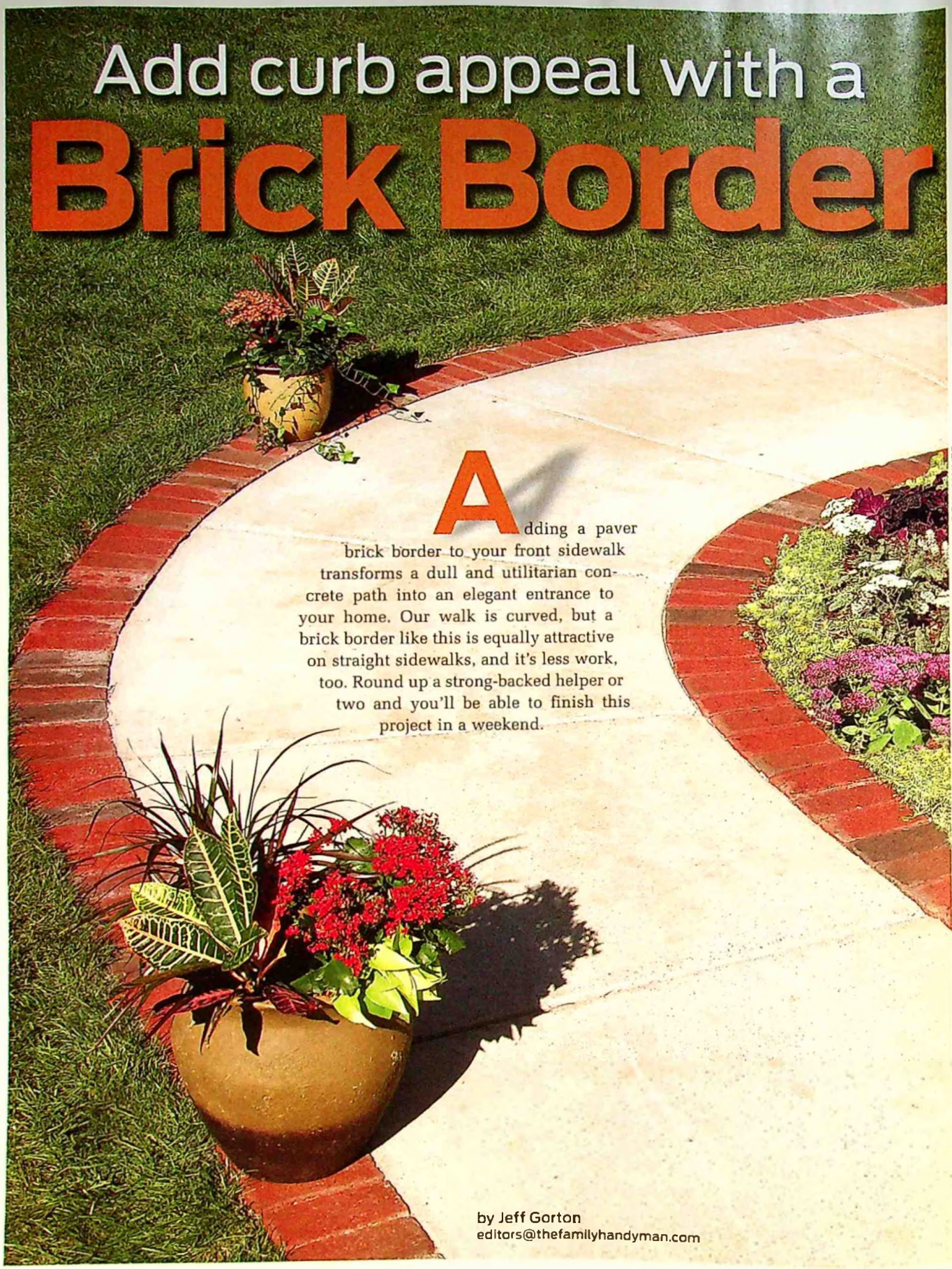


Route the new belt around the drum and toward the motor/tensioner assembly. Reach your hands around the motor and retract the tensioner so you can wrap the belt around the motor pulley.

Drum won't rotate, but the motor runs

You're in luck—it's only a broken belt ($20). Remove the front cabinet panel and lift the entire drum out of the cabinet. Now's the time to fire up your shop vacuum and suck out all the lint. Then spin the tensioner roller by hand to see if it runs smoothly and examine it for cracks. Replace the tensioner ($17) if it fails either test. Reinstall the drum and wrap the new belt around it (ribs facing the drum). Some tensioners are mounted behind the motor, so they're difficult to see from the front access panel. You'll have to do this by feel. Reach your hands around the blower housing and lift the tensioner up while you route the belt around the motor pulley.

Add curb appeal with a Brick Border



Adding a paver brick border to your front sidewalk transforms a dull and utilitarian concrete path into an elegant entrance to your home. Our walk is curved, but a brick border like this is equally attractive on straight sidewalks, and it's less work, too. Round up a strong-backed helper or two and you'll be able to finish this project in a weekend.

by Jeff Gorton
editors@thefamilyhandyman.com

Photos by TOM FERNICA • Consultants JEFF TIMM and DUANE JOHNSON • Technical Art DON MANNES

Connect to Rick Warren's New Purpose Driven Community

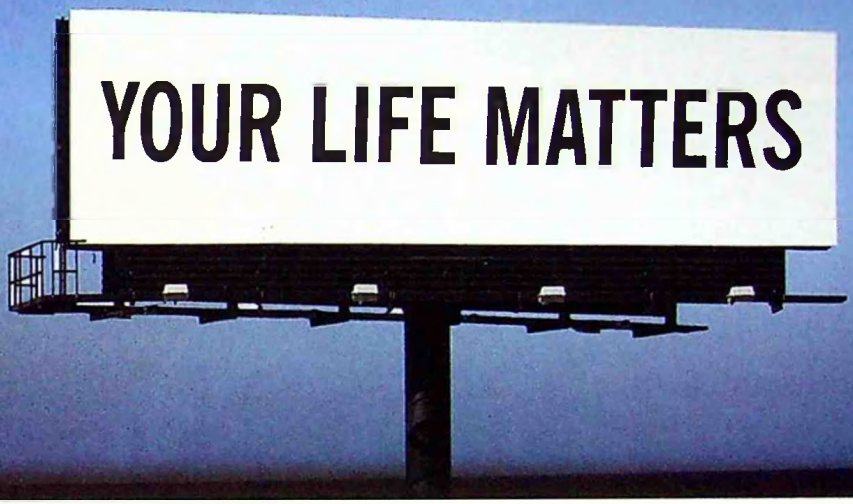
THE MAGAZINE

THE DVD LESSONS

THE STUDY GUIDES

THE WEB COMMUNITY

START YOUR *PURPOSE DRIVEN CONNECTION* NOW



Find hope and comfort by becoming a member of Rick Warren's *Purpose Driven Connection*. Join Pastor Rick and a community of thousands of like-minded people. You'll receive all-new:

***Purpose Driven Connection* magazine**

Rick Warren's small group lessons on DVDs

Lesson enhancing study guides

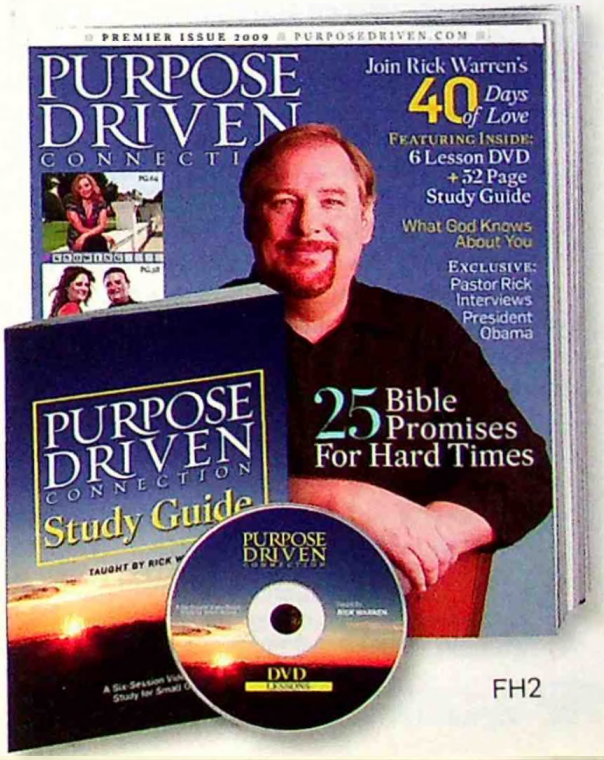
FREE access to the *Purpose Driven Connection* online community:

- Participate in inspiring discussions
- Connect with new and old friends
- Share what God is doing in your life

Connect at:

purposedriven.com/handyman

or call 1-877-342-4642



FH2

1 Dig a trench to provide space for the compacted fill. The fill provides a stable base to keep the brick border from shifting.

2 Level the gravel about 3-1/2 in. below the top of the sidewalk to allow room for the bricks and about an inch of sand. A 2x4 with a scrap of plywood screwed to it makes a perfect notched screed board.

Materials for this clay brick border cost anywhere from $6 to $10 per linear foot, but the added curb appeal will easily add more than this to the value of your home, making the project both an attractive addition and a good investment. To do a first-class installation like the one we show, a pro could charge as much as $500 to $1,000 just for the labor.

We installed a deep compacted gravel base under the bricks. You could save a lot of work by simply digging a small trench and laying the bricks right on the soil, but you'd probably have to realign them every summer. The method we show takes longer initially, but guarantees a long-lasting job that'll look great for decades.

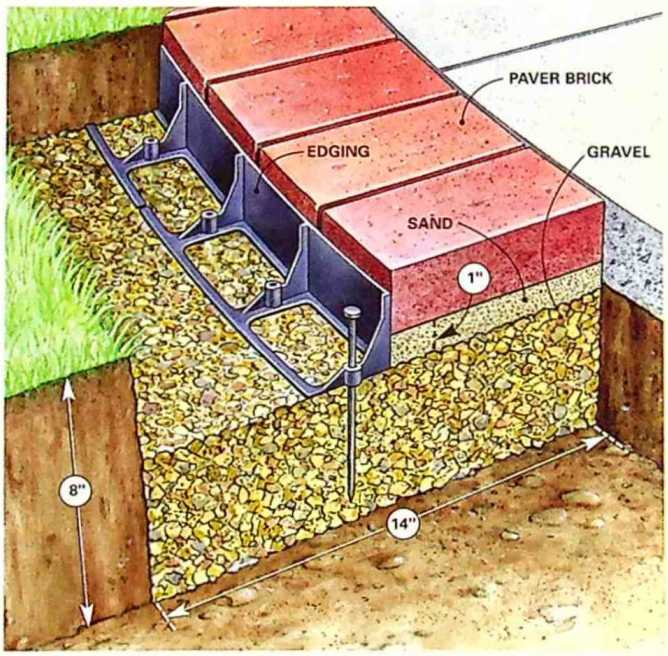
Planning and preparation

For this project, you'll need bricks, compactable gravel for the base, washed sand, and plastic paver edging to hold the bricks in place. If you're lucky enough to have a full-service landscape supplier in your area, you can order all your materials there. Otherwise, look for pavers and plastic paver edging at home centers, garden centers or brickyards, and gravel at a landscape supplier or at a sand and gravel quarry. Don't forget to ask about delivery charges.

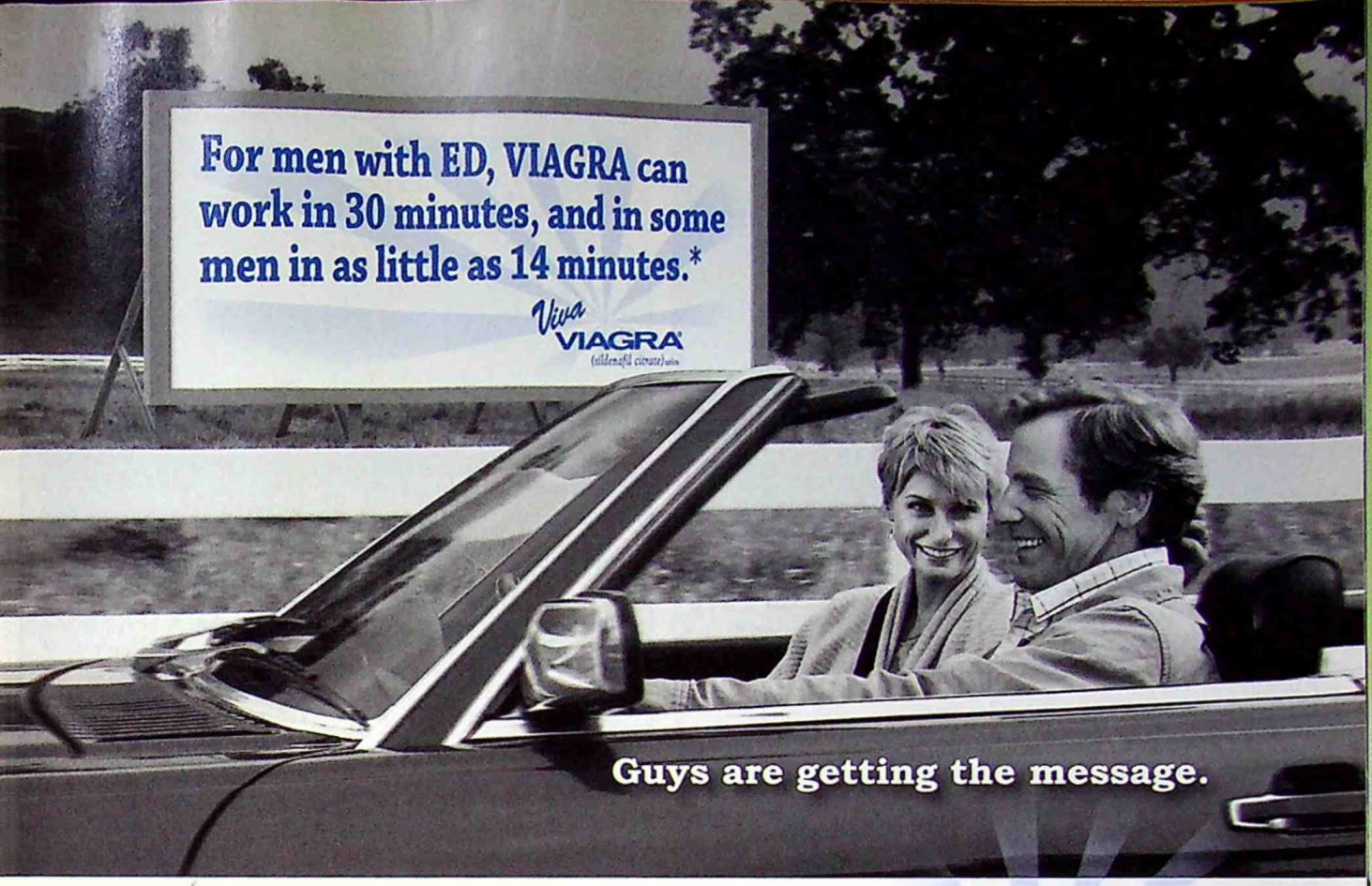
Cement or clay paver bricks cost 60¢ to $1.50 each. Clay pavers have a rich, authentic look, but cement pavers are a little less expensive. Both types are durable and long lasting. Most pavers are 4 x 8 in. and about 2-1/4 in. thick, but other sizes are available. Measure the total linear feet of edging you plan to install and multiply by 3 to arrive at the number of 4-in.-wide paver bricks you'll need. The plastic paver edging needed to hold the bricks in place costs $1.50 to $2.50 per linear ft. That may seem expensive, but the edging is necessary to keep the bricks from drifting. Use the total linear feet of border to order edging. You'll also need enough 10-in.-long spikes (60¢ each) to install one every 12 in.

To ensure that the bricks remain stable and won't tip when you wheel a lawn mower over them, the new compacted base should be 6 in. wider than the brick and extend 6 in. below the bottom of the brick. This means you'll dig a 14-in.-wide by 8-in.-deep trench for typical paver bricks. To determine how much gravel you'll need for this size trench,

Figure A
Brick edging details



thefamilyhandyman.com
For a bunch more low-cost curb appeal projects and ideas, go to thefamilyhandyman.com/curbappeal.



Men with Erectile Dysfunction (ED) are discovering that VIAGRA can help them get and keep harder erections, which can lead to more satisfying sexual experiences. ***Get the message yourself at viagra.com.*** Then ask your doctor if VIAGRA is right for you.

Viva VIAGRA® (sildenafil citrate) tablets

VIAGRA is prescribed to treat erectile dysfunction. We know that no medicine is for everyone. Don't take VIAGRA if you take nitrates, often prescribed for chest pain, as this may cause a sudden unsafe drop in blood pressure.

Talk with your doctor first. Make sure your heart is healthy enough to have sex. If you have chest pain, nausea, or other discomforts during sex, seek medical help right away. As with any ED tablet, in the rare event of an erection lasting more than four hours, seek immediate medical help to avoid long-term injury.

In rare instances, men taking PDE5 inhibitors (oral erectile dysfunction medicines, including VIAGRA) reported a sudden decrease or loss of vision, or sudden decrease or loss of hearing. It is not possible to determine whether these events are related directly to these medicines or to other factors. If you experience any of these symptoms, stop taking PDE5 inhibitors, including VIAGRA, and call a doctor right away.

The most common side effects of VIAGRA are headache, facial flushing, and upset stomach. Less common are bluish or blurred vision, or being sensitive to light. These may occur for a brief time.

Take VIAGRA about 1 hour before you want to have sex. VIAGRA works for 4 hours. VIAGRA only works with stimulation. VIAGRA does not protect against sexually transmitted diseases including HIV. Please see Important Facts for VIAGRA on the following page or visit viagra.com for full prescribing information. **For free information, including questions to ask your doctor, call 1-888-4VIAGRA (1-888-484-2472).**

***Data taken from a study of 228 men with ED who previously had success with VIAGRA. Of the 115 men who took VIAGRA 100mg, 35% had erections hard enough for successful intercourse at 14 minutes, and 51% of men at 20 minutes.**

Individual results may vary.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.FDA.gov/medwatch or call 1-800-FDA-1088.

VGU00348D © 2008 Pfizer Inc. All rights reserved. Pfizer

IMPORTANT FACTS

VIAGRA® *(sildenafil citrate) tablets* (vi-AG-rah)

IMPORTANT SAFETY INFORMATION ABOUT VIAGRA

Never take VIAGRA if you take any medicines with nitrates. This includes nitroglycerin. Your blood pressure could drop quickly. It could fall to an unsafe or life-threatening level.

ABOUT ERECTILE DYSFUNCTION (ED)

Erectile dysfunction means a man cannot get or keep an erection. Health problems, injury, or side effects of drugs may cause ED. The cause may not be known.

ABOUT VIAGRA

VIAGRA is used to treat ED in men. When you want to have sex, VIAGRA can help you get and keep an erection when you are sexually excited. You cannot get an erection just by taking the pill. Only your doctor can prescribe VIAGRA.

VIAGRA does not cure ED.

VIAGRA does not protect you or your partner from STDs (sexually transmitted diseases) or HIV. You will need to use a condom.

VIAGRA is not a hormone or an aphrodisiac.

WHO IS VIAGRA FOR?

Who should take VIAGRA?

Men who have ED and whose heart is healthy enough for sex.

Who should NOT take VIAGRA?

- If you ever take medicines with nitrates:
  - Medicines that treat chest pain (angina), such as nitroglycerin or isosorbide mononitrate or dinitrate
- If you use some street drugs, such as "poppers" (amyl nitrate or nitrite)
- If you are allergic to anything in the VIAGRA tablet.

BEFORE YOU START VIAGRA

Tell your doctor if you have or ever had:

- Heart attack, abnormal heartbeats, or stroke
- Heart problems, such as heart failure, chest pain, or aortic valve narrowing
- Low or high blood pressure
- Severe vision loss
- An eye condition called retinitis pigmentosa
- Kidney or liver problems
- Blood problems, such as sickle cell anemia or leukemia
- A deformed penis, Peyronie's disease, or an erection that lasted more than 4 hours
- Stomach ulcers or any kind of bleeding problems

Tell your doctor about all your medicines. Include over-the-counter medicines, vitamins, and herbal products. Tell your doctor if you take or use:

- Medicines called alpha-blockers to treat high blood pressure or prostate problems. Your blood pressure could suddenly get too low. You could get dizzy or faint. Your doctor may start you on a lower dose of VIAGRA.
- Medicines called protease inhibitors for HIV. Your doctor may prescribe a 25 mg dose. Your doctor may limit VIAGRA to 25 mg in a 48-hour period.
- Other methods to cause erections. These include pills, injections, implants, or pumps.

POSSIBLE SIDE EFFECTS OF VIAGRA

Side effects are mostly mild to moderate. They usually go away after a few hours. Some of these are more likely to happen with higher doses.

The most common side effects are:

- Headache
- Feeling flushed
- Upset stomach

Less common side effects are:

- Trouble telling blue and green apart or seeing a blue tinge on things
- Eyes being more sensitive to light
- Blurred vision

Rarely, a small number of men taking VIAGRA have reported these serious events:

- Having an erection that lasts more than 4 hours. If the erection is not treated right away, long-term loss of potency could occur.
- Sudden decrease or loss of sight in one or both eyes. We do not know if these events are caused by VIAGRA and medicines like it or caused by other factors. They may be caused by conditions like high blood pressure or diabetes. If you have sudden vision changes, stop using VIAGRA and all medicines like it. Call your doctor right away.
- Sudden decrease or loss of hearing. We do not know if these events are caused by VIAGRA and medicines like it or caused by other factors. If you have sudden hearing changes, stop using VIAGRA and all medicines like it. Call your doctor right away.
- Heart attack, stroke, irregular heartbeats, and death. We do not know whether these events are caused by VIAGRA or caused by other factors. Most of these happened in men who already had heart problems.

If you have any of these problems, stop VIAGRA. Call your doctor right away.

HOW TO TAKE VIAGRA

Do:

- Take VIAGRA only the way your doctor tells you. VIAGRA comes in 25 mg, 50 mg, and 100 mg tablets. Your doctor will tell you how much to take.
- If you are over 65 or have serious liver or kidney problems, your doctor may start you at the lowest dose (25 mg).
- Take VIAGRA about 1 hour before you want to have sex. VIAGRA starts to work in about 30 minutes when you are sexually excited. VIAGRA lasts up to 4 hours.

Don't:

- Do not take VIAGRA more than once a day.
- Do not take more VIAGRA than your doctor tells you. If you think you need more VIAGRA, talk with your doctor.
- Do not start or stop any other medicines before checking with your doctor.

NEED MORE INFORMATION?

- This is only a summary of important information. Ask your doctor or pharmacist for complete product information OR
- Go to **www.viagra.com or call (888) 4-VIAGRA (484-2472).**

Uninsured? Need help paying for Pfizer medicine? Pfizer has programs that can help. Call 1-866-706-2400 or visit www.PfizerHelpfulAnswers.com.

helpful answers

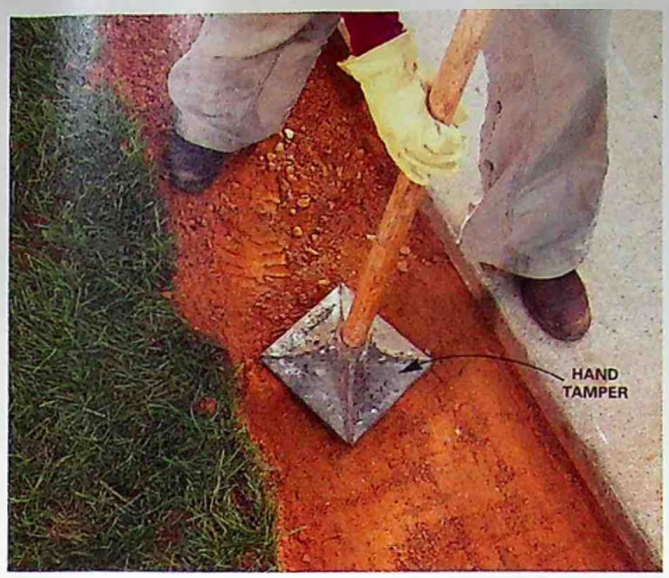
Pfizer

Distributed by
Pfizer Labs
Division of Pfizer Inc, NY, NY 10017

Rx Only ©2007 Pfizer Inc. All rights reserved. Printed in the USA.

VGIF Rev 4 12/07

Registered trademarks are the property of their respective owners.



3 Pound the gravel with a hand tamper until if feels solid. The level will drop as the gravel settles, but that's OK because you'll add sand later to make up for it.

4 Add a layer of sand on top of the gravel to create a flat bed for the brick. Bricks should protrude about 1/2 in. above the sidewalk when set on the screeded sand.

grab your calculator and multiply the linear feet of trench by .02. The result is the number of cubic yards of gravel needed. Order gravel that ranges in size from 3/4 in. down to a powder (called 3/4-in.-minus). For our project, which was a total of 60 linear feet, we ordered 1-1/4 cu. yds. of 3/4-minus crushed limestone. It cost us $45 for the material plus $100 for delivery. Have the gravel dumped on the driveway where it's easier to shovel up. You'll also need a 1-in. layer of sand under the bricks. It's usually cheaper and easier to simply order bags of sand ($2.50 to $3 each) rather than have a small quantity delivered. Divide the linear feet of border by 5 to determine how many 50-lb. bags of sand you'll need.

We rented a sod cutter ($18 per day) to slice a neat layer of grass from along the edge of the sidewalk, but a flat shovel will also work. In addition to a shovel and rake, you'll need a wheelbarrow, tamper ($30, or $10 per day to rent) and some scraps of lumber and basic carpentry tools to construct the screeds (**Photos 2 and 4**). If your sidewalk is straight and you only have a few bricks to cut, you can use a diamond blade ($25) mounted in a circular saw to cut the bricks. If your sidewalk is curved or you anticipate a lot of cutting, rent a brick saw ($65 to $100 per day; **Photo 7**).

Dig the trench

Two days before you start digging, call your local one-call number and ask to have the buried utility lines alongside your sidewalk located and marked (call 811 to find your local one-call number). When you're sure it's safe to dig, start by removing a 14-in.-wide layer of grass along the sidewalk. If your grass is in good shape, slice it off carefully so you can use it to patch in along the new border. A sod cutter simplifies this job and leaves you with neat rolls of sod that are easy to reuse. If your grass isn't worth saving, just dig it out and plan to buy a few rolls of sod instead. Next, dig a 14-in.-wide by 8-in.-deep trench along the sidewalk to accommodate the gravel, sand and pavers (**Photo 1**). You're going to have a lot of dirt to get rid of. Ask around the neighborhood to see if someone needs fill for a low spot, or consider building a raised bed garden or decorative earth berm.

5 Set the bricks on the sand bed. Don't worry if the tops aren't even. You'll tamp them down later to level them out and make them flush to the sidewalk.

thefamilyhandyman.com

- If you want to learn how to replace or add a new concrete walk go to thefamilyhandyman.com/concretesidewalk.
- Learn how to combine stone and pavers to make a path or patio at thefamilyhandyman.com/brickandstonepath.

EKTORP is designed for everyday life. And built to withstand it.

Take a seat. Or an armrest. At IKEA, we're tough on both. We drop 220-pound weights on our armrests and test our pillows to ensure durability. And if a little salsa does fall off the chip, don't worry. The look and shape of our removable covers can stand up to multiple washings. So it'll never lose its figure. And you'll always have a place to sit. Because we back it all up with a 10-year limited warranty.

IKEA

Home is the most important place in the world.

Some products require assembly
© Inter IKEA Systems B.V. 2009

6 Mark bricks to fit around a curve by simply setting them in place. Then estimate how much you'll have to cut off to close the gap between bricks and draw a cutting line with a permanent marker.

As a last resort, you can rent a 10-cu.-yd. trash bin ($250). When you're done digging, rake the bottom of the trench smooth and compact it with the hand tamper.

Since the purpose of the gravel fill is to provide a stable base, it's important to compact it well. Start by spreading a 3-in.-deep layer of gravel in the trench. Pound every square inch with the hand tamper until it's tightly packed. Then add another 3 in. of fill and drag a screed across the top to create a surface that's parallel to the top of the sidewalk (**Photo 2**). Construct a screed by screwing a 14-in.-wide scrap of plywood to a 32-in. length of 2x4. The plywood should extend below the 2x4 the thickness of the paver brick plus 3/4 in. Tamp the fill again after leveling it with the screed (**Photo 3**).

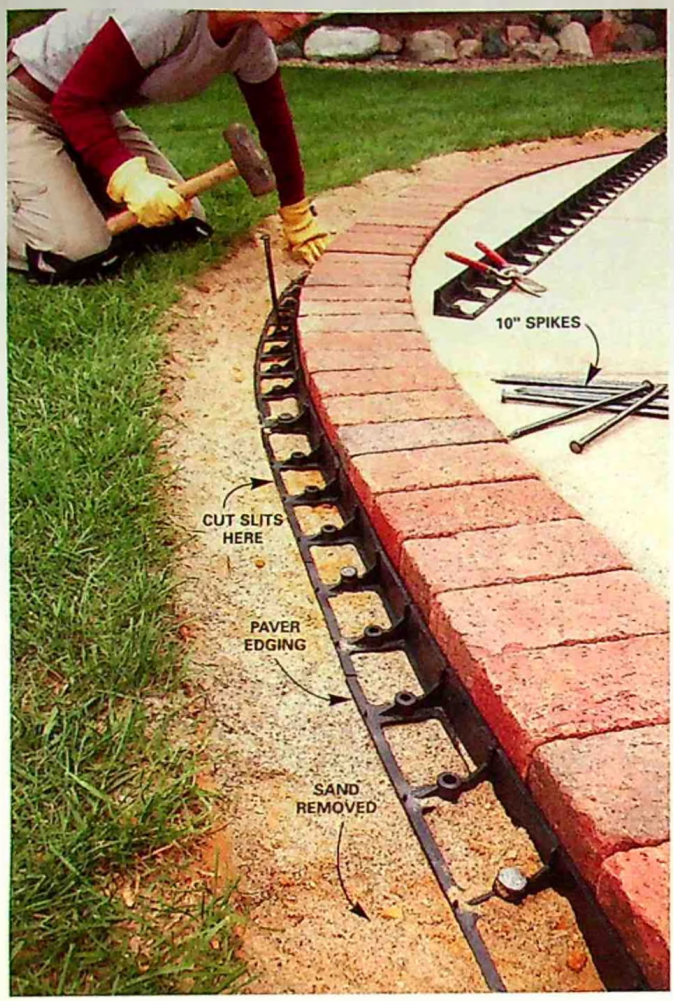
Next spread a layer of sand a little deeper than 1 in. over the compacted base. If the sand is dry, dampen it with a mist from the garden hose. This will help hold the sand in place when you scrape away the excess to install the paver edging (**Photo 8**). Construct another screed and use it to level the sand (**Photo 4**). Figure the depth of the notch by subtracting 1/4 in. from the thickness of a brick. Set a paver on the screeded sand to test the depth. The paver should protrude about 1/4 in. above the surface of the sidewalk. You'll make the pavers flush later by tamping them down into the sand bed (**Photo 9**).

Set the pavers

Since there's a good chance you'll have to cut the last brick to fit, start with a full brick in the most visible location and plan to finish in the least conspicuous spot. If your edging turns a right angle corner, start at the corner and work out. **Photo 5** shows how to get started. You'll have to cut the pavers to go around curves. To figure out how much to cut from each, arrange a half-dozen pavers along the curve with the ends touching and estimate the gap between

7 Rent a brick saw if you have a lot of bricks to cut. Water spraying on the diamond blade keeps dust to a minimum and speeds cutting.

EKTORP sofa
$499
EVERYDAY QUALITY
10
YEAR
IKEA
LIMITED WARRANTY
Cause the salsa always falls off the chip.
At IKEA, we design our living room products for actual living. A sofa with a washable cover can also be a trampoline, a coffee table can also be a footrest and a bookshelf needs to hold way more than just books. Sure, it requires a little more effort to design for life instead of designing for the showroom, but that's just the way we do things. So let the kids play, let the salsa spill and let the chips fall where they may.
IKEA
Home is the most important place in the world.
www.IKEA-USA.com
EKTORP sofa $499. Removable, washable 100% cotton cover. Imported. Requires assembly. W84⅛×D34⅛×H34⅝". Idemo Black. 498.394.98.
Buy an extra cover starting at $49.
EKTORP has a 10-year limited warranty. See www.IKEA-USA.com for details.
Valid in US IKEA stores only. See your local IKEA store for country of origin information.
© Inter IKEA Systems B.V. 2009



8 Hold the bricks securely in place with plastic paver edging. Press the plastic edging against the bricks and secure it with spikes. The edging bends easily once you cut the plastic band along the outside edge.

9 Level the tops of the paver bricks with a board and hand maul. Tamp them down flush to the surface of the sidewalk.

10 Slope bricks alongside steps to make an attractive transition. Follow the grade of the adjacent lawn to determine the slope.

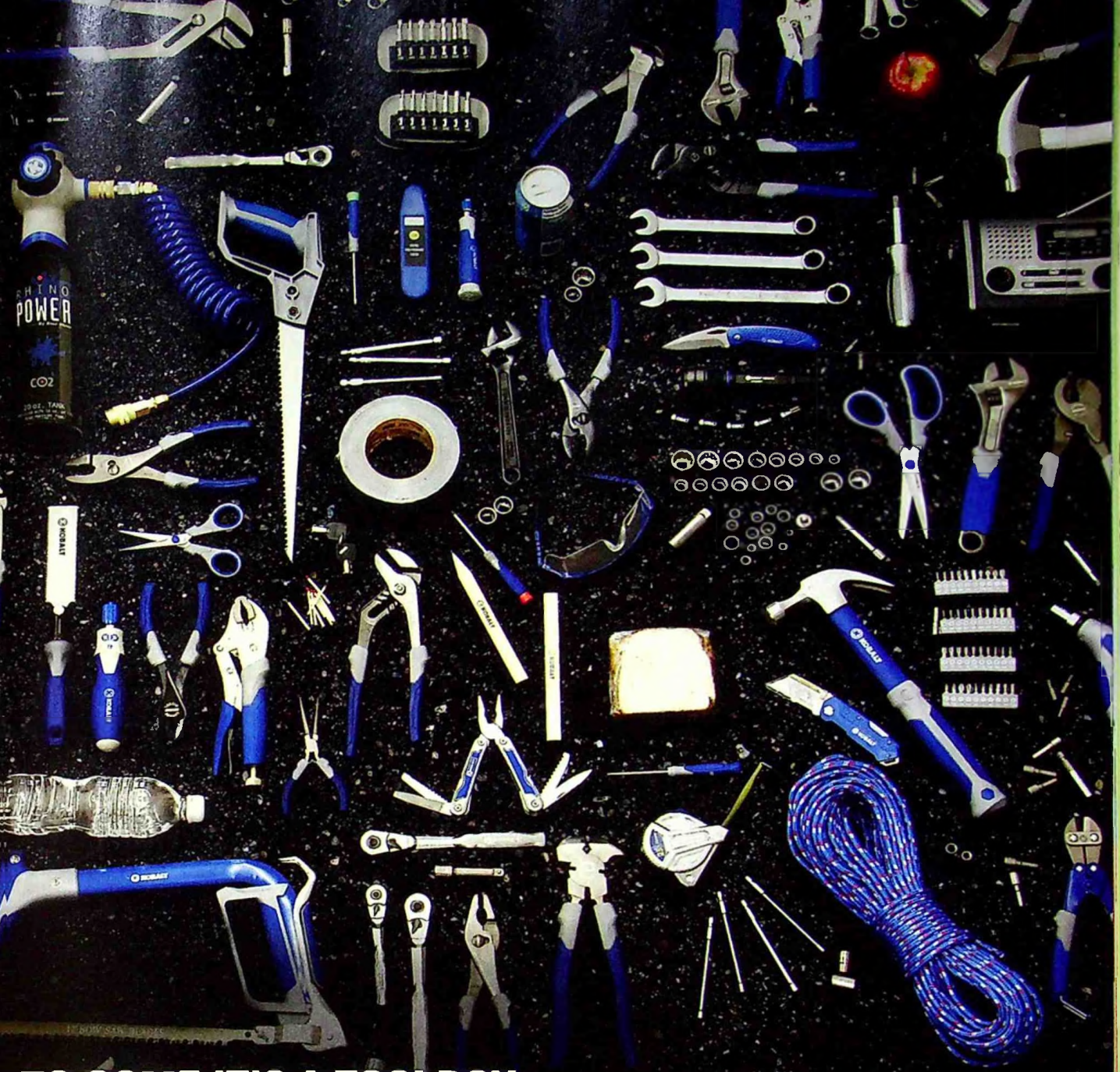
them. If the curve is very gradual, you can simply cut every third or fourth paver to fit. For steeper curves, mark the cuts (**Photo 6**) and cut along the marks with a brick saw (**Photo 7**). Cut and install several pavers, then repeat the process until the curved section is complete.

Next, install plastic paver edging behind the bricks to hold them in place. Start by scraping the extra sand out from behind the bricks so the edging will rest on the compacted fill. The Snap Edge edging we used (snapedgeusa.com) required us to cut the outermost band with tin snips to allow the edging to bend around the curve. Press the edging against the bricks and drive 10-in. spikes every 12 in. to hold the edging in place (**Photo 8**).

At this point, the bricks should protrude slightly above the surface of the sidewalk. **Photo 9** shows how to use a scrap of lumber and hand maul to embed the bricks in the sand and make them flush with the surface of the sidewalk. Embed all the bricks. Then spread sand over them and work it into the cracks with a broom. Be sure the sand is dry or it won't settle into the cracks. Tamp the bricks again with the 2x6 board and hand maul. The vibration will cause the dry sand to fill the cracks and lock the bricks tightly together.

Complete the project by filling the trench behind the bricks with some of the soil you removed earlier. Leave the soil slightly below the surface of the lawn to allow room for the sod. You may have to experiment a little to get the level just right. Set the sod in place and trim it to fit with a utility knife.

Photo 10 shows how we ran the bricks alongside the step. This technique works whether you have one or several steps. In some cases, you may have to remove an additional strip of sod alongside the steps and regrade the soil slightly so the lawn lines up with the edge of the bricks, but it's a neat-looking solution that's worth the extra effort.



TO SOME IT'S A TOOLBOX, TO OTHERS IT'S A SURVIVAL KIT.

Be prepared for your toughest projects by choosing Kobalt™ tools. Durable and ready to go at a moment's notice, Kobalt tools have the comfortable hex grip design so there's less wear and tear on your hands. To see all the essentials, go to **Lowes.com/Kobalt**.

KOBALT
NEXT GENERATION OF TOUGH TOOLS™

Available only at

LOWE'S
Let's Build Something Together™

2009 by Lowe's. All rights reserved. Lowe's, the gable design, Kobalt, and the K design are registered trademarks of LF, LLC.

For hot water we can all feel good about, install a tankless water heater.

This should warm you up right away: While delivering endless hot water, a propane tankless water heater can lower water heating bills up to 60 percent compared to an electric water heater. In fact, an Energy Star–rated propane tankless water heater is so efficient, it can save 10 to 20 percent in daily water use. Plus, it's easier on the environment, with half the carbon emmissions. You may also qualify for tax incentives. Start feeling warmer today. Learn more at usepropane.com.

PROPANE
EXCEPTIONAL ENERGY®

ADVERTISEMENT

THE HOTTEST NEW THING IN HOME REMODELING:

TANKLESS WATER HEATERS

Remodeling your kitchen or bathroom is an investment that can pay off handsomely in terms of comfort, convenience and resale value. But there's one project offering those same benefits that's often ignored: Installing a propane tankless water heater.

Tankless, or on-demand, water heaters heat your water as you use it, as opposed to standard units that consume energy to keep 40 to 50 gallons of water heated 24/7. This means, propane tankless water heaters save you money, energy and hassle. **Here's how:**

SAVE MONEY

Tankless water heaters cost up to 60% less to operate than standard electric units. The average American family can also save 10-20% of its daily water use by installing a tankless unit.

SAVE ENERGY—AND THE ENVIRONMENT

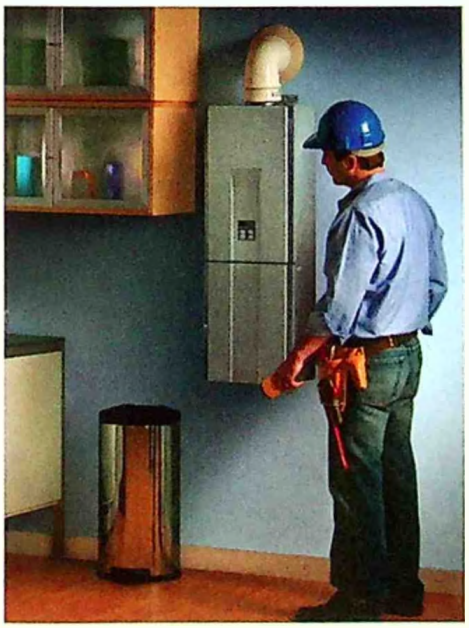
Tankless propane water heaters are Energy Star qualified, meaning you'll save energy and reduce your carbon footprint. In fact, propane tankless water heaters release 63% less carbon emissions than electric water heaters. Federal tax credits of 30% can be claimed for energy efficient improvements, such as tankless units, installed in 2009; see www.energytaxincentives.org. In addition, several states offer rebates for those switching from electric to propane water heaters.

SAVE HASSLE

Because they heat water as you use it, tankless units provide an endless stream of water—as much as you need, when you need it. And with a life expectancy of up to double that of a standard water heater, you won't have to worry about replacing your tankless hot water heater for 20 years. Tankless units are smaller than standard heaters and mount on the wall, freeing up valuable floor space you can use for storage, appliances or other activities—another bonus.

FOR ENDLESS HOT WATER, CALL YOUR CONTRACTOR TODAY

Tankless water heaters should only be installed by qualified personnel. Contact your local propane retailer or local plumber/HVAC contractor for more details and installation information.



Visit www.usepropane.com for more information about tankless water heaters.

PROPANE
EXCEPTIONAL ENERGY™

Under-cabinet drawers

Get more kitchen storage in one weekend

Installing drawers under cabinets sounds like a tough job, requiring fussy planning, the skills of a cabinetmaker and child-size hands to work in that cramped space. But this project is amazingly easy. To simplify the whole process, we designed self-contained drawer units that you can assemble in your shop and then slip into place. To simplify planning,

Elisa Bernick
and Gary Wentz
editors@thefamilyhandyman.com

Art Direction MARCIA ROEPKE • Photography TOM FENENGA • Illustration FRANK ROHRBACH III

Don't let all this space go to waste

To gain storage space, you usually have to give up space somewhere else. Not in this case. Hidden under almost every kitchen cabinet, there's a cavity containing nothing but air. This low, shallow cavity isn't prime storage space for everyday items, but it's perfect for bakeware, cleaning supplies, pet dishes and more.

STRONG ENOUGH TO PROTECT THE WORLD'S WETTEST DECKS.

AND YOURS.

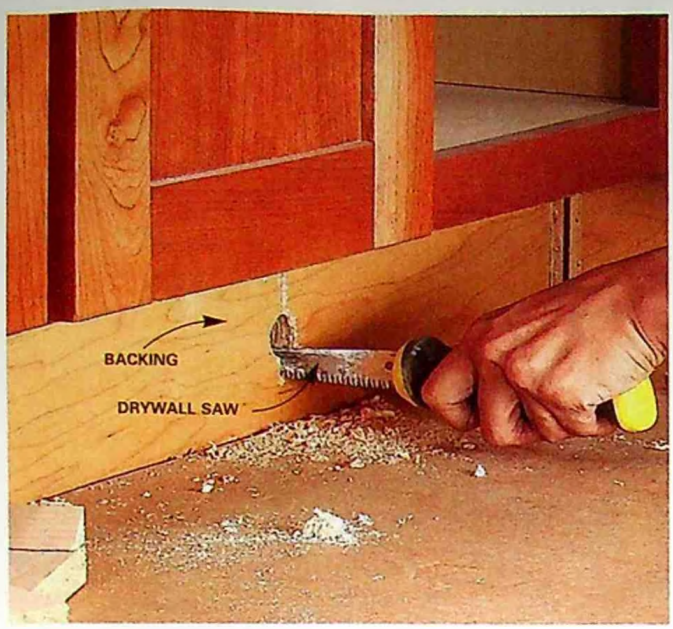
Cave of the Winds decks at Niagara Falls, USA.

Thompson's WaterSeal

Millions of gallons of water drench the decks at Niagara Falls each year. That's why they use Thompson's® WaterSeal® products – the most powerful protection against water damage, guaranteed* – to protect the *Cave of the Winds* decks at Niagara Falls, including the famous *Hurricane Deck*.

Thompson's® WaterSeal® wood protectors and stains contain special inhibitors that protect against mildew and fading, so your deck looks beautiful for years to come. Trust the Thompson's® WaterSeal® brand for superior, long-lasting protection from the elements…no matter how extreme. Learn more about how you can protect your deck from water damage at **thompsonswaterseal.com.**

© 2009 The Thompson's Company * Satisfaction Guaranteed. See product package for details.



1 Break out the toe-kick backing to open up the spaces under the cabinets. Just drill a hole near the center, cut the backing in half and pull it out.

2 Build super-simple drawer boxes. Just glue and nail the sides front and back together, then glue and nail on the plywood bottom.

we'll show you three basic measurements that let you size these drawers to fit under any cabinet. Even if you've never built or installed a drawer before, you can do it. This project is economical, too. Our total materials cost for these three drawers was about $100. A cabinetmaker would have charged at least $350 to build and install them. The number of drawers is up to you; install them under all your cabinets or just one.

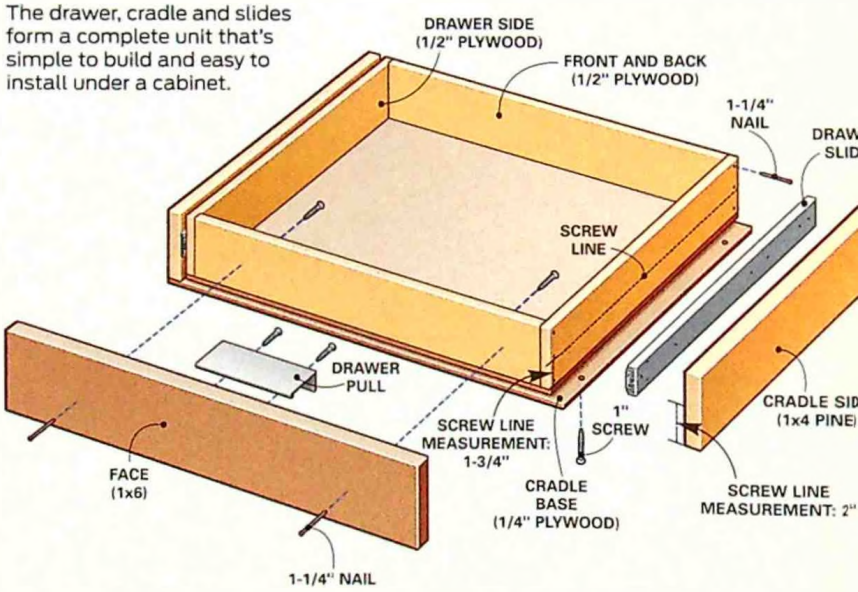
Will it work with my cabinets?

The vast majority of kitchen cabinets are similar to the ones we show here, with sides that extend to the floor (see **Photo 1**). But there are a few rare exceptions. Some cabinets, for example, stand on legs rather than the cabinet sides. Open the cabinet doors and take a look at the bottom of the cabinet box. If you see screw heads or holes near the corners, your cabinets probably stand on legs rather than the cabinet sides (the screws or holes allow for height adjustment). In that case, installing drawers will require different steps than we show here.

If your cabinets are constructed like ours, you can install drawers just as we did. There are just a few things to keep in mind:

Figure A
Drawer unit

The drawer, cradle and slides form a complete unit that's simple to build and easy to install under a cabinet.



- If the cabinet is more than 30 in. wide, consider installing two drawers rather than one. Wider drawers tend to bind as you slide them in or out.
- Your drawers will be shallow; don't expect to store kettles in them. A 4-in.-high toe space will give you storage space that's about 3 in. deep.
- You can install drawers under a sink cabinet (or a bathroom vanity). But if the sink's plumbing runs through the bottom of the cabinet, the drawers wi have to be shorter.

Tools and materials

You could build the drawers with noo ing but hand tools and a circular sa but a table saw and miter saw will gi you faster, better results. A nail gun another big time-saver, though you c hammer everything together wi 1-1/4-in. finish nails instead.

It's Time to Expand Your Options

One Engine, 13 Attachments. Endless Possibilities.

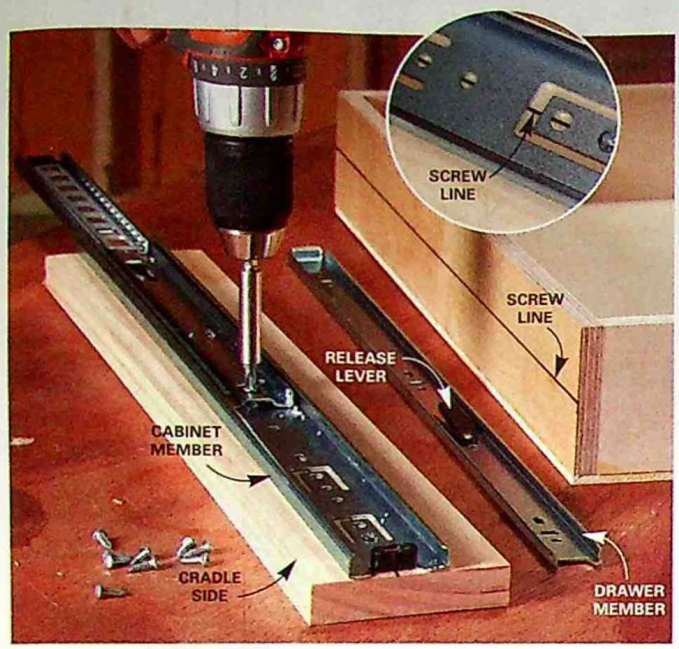
Need multiple tools for multiple tasks? The STIHL KombiSystem meets your needs and can save you storage space and equipment costs. Featuring a split-shaft design, the KombiSystem allows you to quickly and easily switch between attachments. Now you can trim, edge, blow, cut, and more – all with one tool. Get more done – expand your options with the STIHL KombiSystem.

STIHL products are sold only at servicing STIHL Dealers. For detailed KombiSystem information and your nearest Dealer, visit stihlusa.com/kombi.

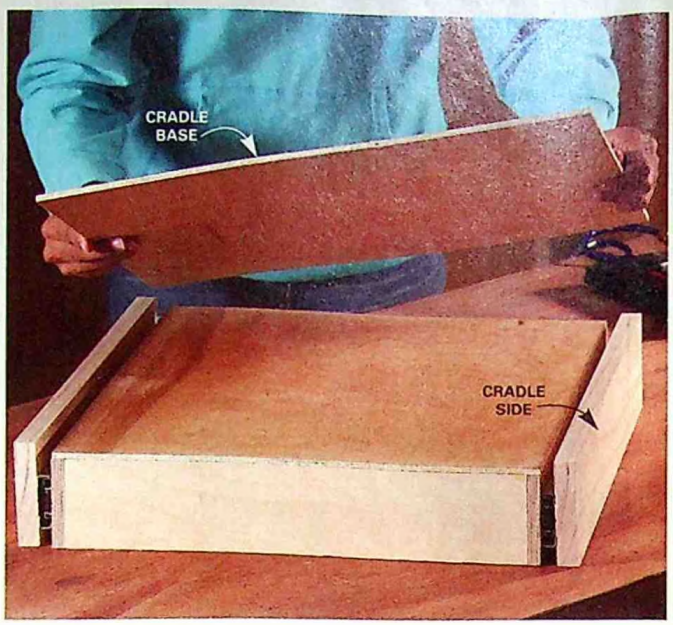
KM 56 RC-E
KombiMotor

KM 90 R
KombiMotor

STIHL®



3 Mount the slides, centering the screw holes on the screw lines. Press the release lever to separate the drawer member from the cabinet member.



4 Add the cradle base to create a self-contained drawer unit. Fasten the base with screws only; glue could drip down and gum up the slides.

All the materials are available at most home centers. In the hardware aisle, choose "full-extension" side-mount drawer slides ($12 to $16 per pair; see **Photo 3**). That way, only 3 to 5 in. of the opened drawer will be covered by the overhanging cabinet front. With cheaper "3/4-extension" slides, only about half the drawer will be accessible. If you can't find full-extension slides, or if you want "overtravel" slides that extend even farther, shop the Web. Search for "drawer slides" to find online suppliers. Slides are available in 2-in.-length increments. Most cabinets accept 18- or 20-in. slides.

Choose hardwood plywood like birch or oak for your drawers. Construction-grade tends to warp. Most home centers carry plywood in 2 x 4-ft. and/or 4 x 4-ft. sheets, so you don't have to buy a full 4 x 8 sheet. Pick out straight pine 1x4s for the cradle sides. For the drawer faces, you'll need hardwood that matches your cabinets. If your toe-space height is 4 in. or less, a 1x4 board will do. For a taller toe space, you'll need a 1x6. Most home centers carry only a few types of wood such as oak, cherry, and birch or maple. If your cabinets are made from a less common species, look for a lumberyard that carries a wider selection (check the yellow pages under "Hardwood"). Or improvise—with the right stain, you can make birch or maple approximately match the color of just about any wood. The grain may look different, but that difference usually isn't noticeable in the dark toe space. We used maple faces, even though our cabinets are made from cherry.

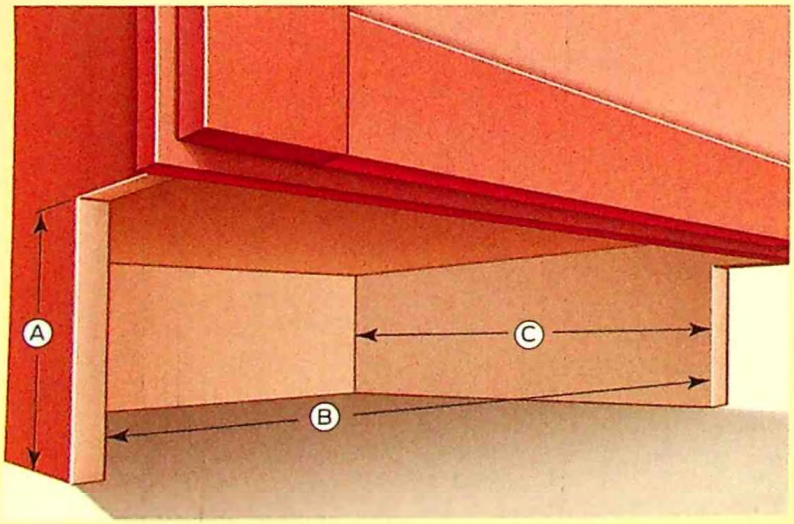


Figure B
Drawer sizing simplified

MEASUREMENT "A"
- Subtract 1-1/2 in. from "A" to determine the width of drawer sides, front and back.
- Subtract 1/2 in. from "A" to determine the width of drawer faces. The length of each face depends on the width of the cabinet.

MEASUREMENT "B"
- Subtract 3-3/4 in. from "B" to determine the length of the drawer front and back. This will make the entire drawer/cradle assembly 1/4 in. smaller than the width of the cavity.

MEASUREMENT "C"
- Subtract 1/4 in. from "C" to determine the length of the cradle and drawer sides.
- This is also the *maximum* length of the drawer slides you can use.

Get Ready for Fun in the Sun!

Enter The Family Handyman

$2,000,000 Vacations for Life

Sweepstakes

Win a lifetime of luxurious vacations at the

SONESTA RESORT ORLANDO
ORLANDO, FLORIDA

Over 30 prizes to win!

Enter daily at: www.VacationsForLife-RD.com

Years of fun-filled vacations to sunny Florida await! The Family Handyman and Reader's Digest proudly present your shot at over 30 prizes totaling two million dollars.

Go to **VacationsForLife-RD.com** now for your chance to experience paradise.

GRAND PRIZE INCLUDES:

- Spacious three-bedroom Mediterranean-inspired accommodations
- Full-access to the resort's 17-acre water park
- All-day entry to Sonesta Resort's world-class spa and fitness center
- A full-year, all-access pass to Universal Theme Parks

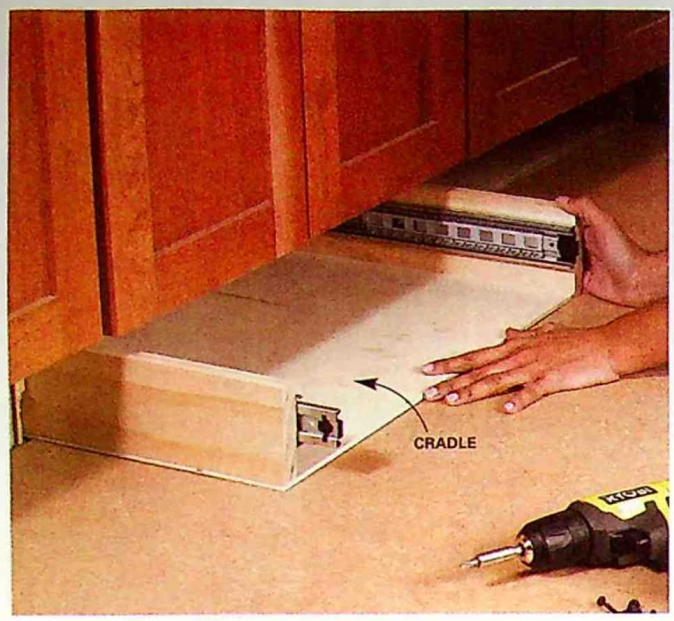
THE FAMILY Handyman
$2,000,000
VACATIONS·FOR·LIFE

Enter daily at:

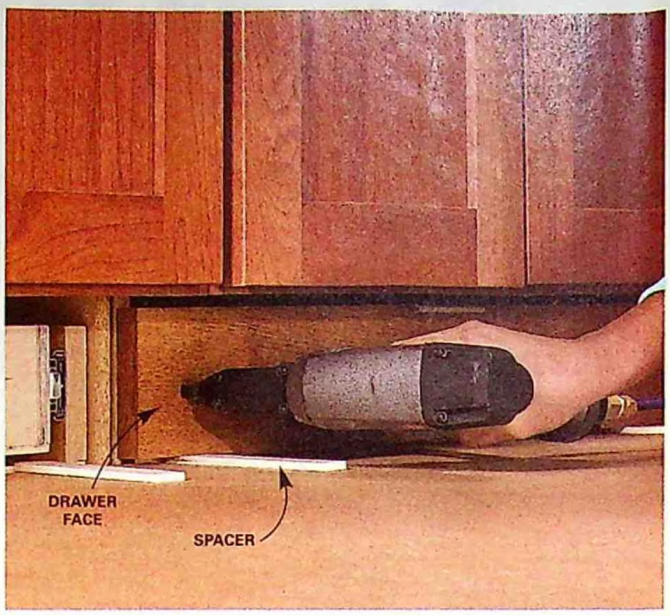
www.VacationsForLife-RD.com

GE · LA-Z-BOY · DELTA · Reader's Digest · Learning Curve · Welcome HOME

No purchase necessary to enter or win. Sweepstakes begins 9/8/08 and closes 9/7/09. Open to U.S. residents 18 and over. Void where prohibited. For entry and other details visit www.vacationsforlife-rd.com. Sponsored by Reader's Digest Association, Inc.



5 Slip the cradle under the cabinet and drive screws through the cradle sides just below the slides. Small hands and a small drill make this part easier.



6 Rest the drawer faces on 1/4-in. spacers. Tack the face in place with two nails, then open the drawer and drive screws into the face from the inside of the drawer box.

Remove the toe-kick and measure

Before you buy materials, open up the cavity under the cabinets so you can take measurements. First, pull off the "toe-kick," the strip of plywood or particleboard in the toe space. Usually, the toe-kick is held by just a few small nails and is easy to pry off. If you don't plan to cover the entire toe space with drawers, be gentle so you can later cut the toe-kick to length and reinstall a section. If layers of flooring have been added since the cabinets were installed, you'll have to pull the top edge of the toe-kick outward first and then pry it up to clear the built-up floor.

Next, remove the toe-kick backing under the cabinets (**Photo 1**). Simply drill a 1-in. hole and cut the backing with a drywall saw. Then grab a flashlight and check for obstructions. Break out any blocking with a chisel or pry bar. Pull out or cut off any nails. Now you're ready to take the three measurements to determine the sizes of the drawers. There's no need for complex calculations—it's all reduced to simple subtraction in **Figure B**.

Build drawers and cradles

If you've ever installed drawer slides similar to the ones we used, you already know how fussy they are. They require a precise 1/2-in. space on both sides of the drawer—build a drawer that's a hair too wide or narrow and you've got a drawer that won't budge. To sidestep that precision work, build each drawer first and then build a "cradle" around it. If you want to install two drawers under one wide cabinet, build a single cradle with both drawers sharing one of the cradle sides and the cradle base.

Our drawers are as easy as they get: Just nail them together (**Photo 2**). If you're using finish nails rather than a nail gun, predrill so you don't split the plywood parts. Remember to place the front and back *between* the sides. Then measure and cut the drawer bottoms. As you install each bottom, be sure the drawer box is square using a large carpenter's square or by using the plywood bottom as a guide (this only works if you've cut the bottoms perfectly square). Cut the 1x4 cradle sides to the same length as the drawer sides. In most cases, you can use 1x4s at full width (3-1/2 in.). But if your toe-space height (measurement "A" in **Figure B**) is less than 4 in., cut the cradle sides to a width 1/2 in. less than the toe-space height.

Next, mark screw lines on the drawer and cradle sides (see **Figure A** for measurements). Pull each slide apart to separate the drawer member from the cabinet member. Then screw them on (**Photo 3**). Our drawer and cradle sides were the same length as the drawer slides—yours may not be. So be sure to position the *front* ends of each drawer member and cabinet member flush with the *fronts* of the drawer and cradle sides. Slip the slides back together, lay the drawer upside down and screw on the cradle base (**Photo 4**). Then flip the whole unit over and inspect your work. Make sure the drawer opens smoothly. When the drawer is closed, the front of it should be flush with the cradle sides, give or take 1/16 in. Any problems are easy to fix by removing screws and repositioning the slides. **Note:** With our drawer units assembled, the cradle sides are exactly the same height as the drawers. Your drawers may come out a bit higher or lower.

Materials List

Here's what we used to build drawers to fit under three 24-in.-wide cabinets. Your quantities may differ.

- One 4' x 8' sheet of 1/4" birch plywood
- One 2' x 4' sheet of 1/2" birch plywood
- 12' of 1x4 pine
- 6' of 1x6 maple
- 3 pairs of drawer slides
- Drawer pulls, wood glue, stain, polyurethane, 1-1/4" brads or nails, 1" and 1-5/8" screws.

Install the drawers

Before you remove the drawers from their cradles, number them to avoid mix-ups later. Each drawer will slide smoothest in the cradle that was built for it. Slip each cradle into place and fasten it to the cabinet with four 1-5/8-in. screws. If you have flooring that's more than 1/4 in. thick, first set scraps of 1/4- or 1/2-in. plywood under the cabinet to support the cradle. The cradle base can be higher than or flush with the flooring, but not lower than the flooring. Position the cradle sides flush with the cabinet sides and tight against one side (**Photo 5**). Screw the cradle to the cabinet, starting with the tight side. On the other side, don't drive in the screws so hard that you distort the cradle. If the drawer doesn't glide smoothly, slightly loosen those screws. Also be sure the drawer doesn't drag on the floor when opened. Load a few heavy objects into the drawer and open it. If it drags, remove the front screws from the cradle and slip washers under it. That will give the drawer a slight upward tilt to clear the floor.

Next, cut the drawer faces to width. When you cut them to length, avoid measuring mistakes by marking them while they're in place. Leave a 1/8- to 1/4-in. gap between neighboring faces. At the end of a row of cabinets, make the face flush with the outer side of the cabinet. The method we used to attach the faces works best with a nail gun (**Photo 6**). Driving nails with a hammer can knock the drawer or cradle out of position. If you don't have a nail gun, stick the faces in place with double-face carpet tape. Then pull out each drawer and attach the face by driving two 1-in. screws from inside the drawer. With the faces attached, be sure they don't drag on the floor. If necessary, raise them with washers as described above.

Finishing up

Remove the drawers from their cradles for finishing. Unscrew the slides from the drawers and sand the drawer faces with 120-grit sandpaper. Also prepare a few stain-testing blocks, using leftover scraps from the faces and sanding them. We removed one cabinet door and took it to a paint store to have matching stain custom-mixed. If you have the patience to experiment, you could buy a couple of cans of stain and mix them to create your own. Either way, apply the stain to your test blocks before you stain the faces. The match doesn't have to be perfect, since the faces will be shaded by the overhanging cabinet fronts. After staining the faces, we finished our drawers—faces and boxes—with two coats of water-based polyurethane. Before reinstalling the drawers, add the drawer pulls or knobs. We couldn't find pulls that closely matched our existing cabinet hardware, so we chose pulls that fit over the tops of the drawer faces and are hidden under the cabinets ($3 to $8 each; see photo, p. 60). To find similar pulls online, search for "EPCO architectural pull."

Driveway Makeover

Instant curb appeal for $100!

Mother Nature is tough on asphalt.

Sunlight breaks down the surface, creating pits and cracks. Then water seeps in, expands the cracks and erodes the gravel base below. Left alone, an asphalt driveway becomes a crumbling eyesore in about 15 years. But with a little maintenance, you can double the life of your driveway and save thousands in replacement costs.

Art Direction DAVID SIMPSON and SARA KOEHLER Photography TOM FENENGA · Consultants WES TURNER, ROBBIE JONES and NICK KELSO, JET-BLACK SEALCOATING

by Duane Johnson editors@thefamilyhandyman.com

TECHNOLOGY

COMFORT

PERFORMANCE

INNOVATION

CRAFTSMANSHIP

STYLE

ENGINEERING

SAFETY

CONTROL

CG Utility

CG Padded Palm

CG Impact Pro

Use your tools wisely.

Whatever your next project is, Mechanix Wear Commercial Grade Series and Hardware Series gloves will help you achieve it. Mechanix Gloves. The Tool That Fits Like a Glove.®

800.222.4296 Canada: 604.542.7055 mechanix.com

MECHANIX WEAR

Add a coat of curb appeal

Most driveways are big and conspicuous. And a long stretch of gray, cracking asphalt can give a home a scruffy look, no matter how handsome the rest of the property is. So a fresh coat of shiny black sealer isn't just protection against expensive driveway damage—it's a face-lift for your home and yard.

You can keep your asphalt in tip-top shape by following the three steps we show here. Asphalt maintenance doesn't require special skills, and you'll only need a few inexpensive tools. You can get everything you need at home centers and hardware stores. However, as with exterior painting, high-quality results hinge on some sweat and careful prep work. Expect to spend about six to eight hours completing the job. To fill cracks and seal coat an average driveway (750 sq. ft.), you'll spend $100 to $150 on materials. That's about half what a pro would charge.

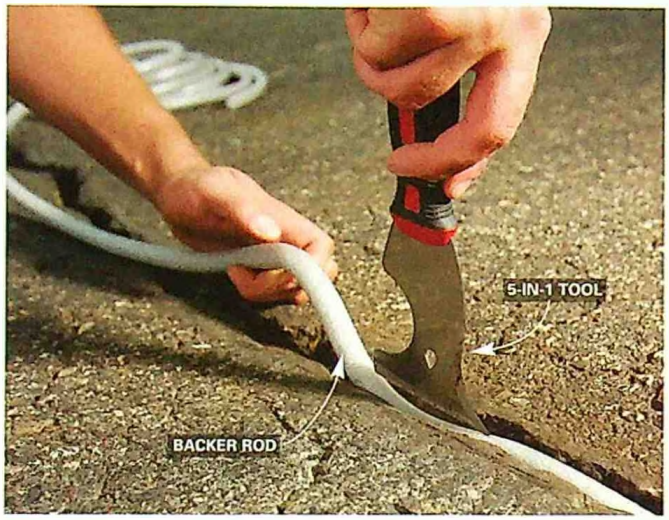
Fill cracks every year

Maintaining the asphalt skin is the best thing you can do to preserve your driveway. The asphalt layer serves primarily as a protective skin over the gravel base. The weight of your car is supported by the base, not the asphalt. If too much water gets through, the base erodes, causing additional cracking, potholes and total asphalt breakup.

The best way to keep the asphalt skin intact is to fill cracks, ideally every spring. Buy the high-quality pouring-type filler ($10 per gallon). Read the labels. Our experts recommend the ones containing rubber compounds. They typically handle cracks from 1/8 in. to 1/2 in. wide. For smaller cracks, small tubes of filler ($5) in a caulking gun are easier to use. For larger cracks, 1/2 to 3/4 in. wide, buy an extra-thick filler that you spread with a trowel, or tamp in asphalt patching material.

Fillers adhere to the sides of cracks, so your first task is to clean out the dirt and old, loose filler 1/2 in. to 1 in. deep. This is time-consuming. Use a screwdriver or a 5-in-1 tool

1 Clean out cracks, digging deep enough to completely remove roots. Clean the edges of the asphalt with a hand broom and blasts of air or water.



2 Stuff backer rod into wide or deep cracks, leaving about 1/2-in. depth to fill with crack filler. The foam rod conserves filler and makes the repair more flexible.

(shown in **Photo 2**) for the packed areas. Go deeper if weeds have taken hold. If you don't get all their roots, they'll grow right up through the new filler. **Tip:** A week before you begin this project, apply a nonselective herbicide to kill roots. Clean the crack edges (**Photo 1**). You can use a pressure washer or a garden hose, but then let the driveway dry for at least a day before filling.

Fillers need at least 24 hours to dry, so don't fill cracks when rain is in the forecast. The filling technique varies with the product, so check the directions. With most products, you can simply pour the filler into cracks up to 1/4 in. wide. For wider cracks, stuff in backer rod first (**Photo 2**). Backer rod is available in several thicknesses at home centers and costs about 10¢ per foot.

Neatness counts when you're filling cracks (**Photo 3**). The jet-black filler contrasts with the gray asphalt and can look bad if you overfill or smear it.

Cracks that form a spider web pattern in a small area usu-

WORLD'S 1ST SELF-FEEDING HOMEOWNER CHIPPER!

Just load a DR® RAPID-FEED™ CHIPPER, step back, and watch it chip branches up to 5 ½" thick!

SELF-FEEDING saves time and energy. Most branches can be dropped into the hopper and will self-feed, instead of you having to force-feed them.

OVERSIZED HOPPER accepts limbs with side branches, even small trees — with less time spent pruning.

TOP-DISCHARGING is standard on all models, for easily collecting discharged chips in a container or cart.

PRO-SPEC™ CHIPPER KNIFE is made of forged alloy tool steel, making it exceptionally strong with an excellent edge-holding ability.

CHIP BRANCHES UP TO 5-1/2" THICK with powerful engines up to 18 HP.

TRACTOR OWNERS!
3-Point Hitch, Tractor-mounted models also available.

PROFESSIONAL POWER DR FOR HOMEOWNERS

Get a Free CHIPPER DVD and Catalog

TOLL FREE **888-200-3210**
www.DRchipper.com

LIMITED-TIME OFFER
1★YEAR TRIAL

65239X © 2009

TOUGH ON UNRULY PROPERTY.

EASY ON YOU!

It's easy to pick up the pace with our newest Self-Propelled DR® TRIMMER/MOWER.

ALL MODELS FEATURE:

POWERFUL ENGINES, for TRIMMING and MOWING tough vegetation that would quickly clog and stall any hand-held trimmer.

INSTANT-ADJUSTMENT cutting height. No tools required.

DURABLE CUTTING CORDS that hold up against fences, rocks, foundations, etc.

LIMITED-TIME OFFER
1★YEAR TRIAL

PROFESSIONAL POWER DR FOR HOMEOWNERS

Get a FREE DVD and Catalog

TOLL FREE **888-200-3210**
www.DRtrimmers.com

65241X © 2009

The DR® FIELD and BRUSH MOWER 1 Year Hands-On Trial!

Now, for a *limited time*, we're extending our 6 Month Trial to a Full Year. There's never been a better time to put a DR® FIELD and BRUSH MOWER to work on your place.

LIMITED-TIME OFFER
1★YEAR TRIAL

FREE
DEPOT
SHIPPING
now in
effect!

Put one to the test on your own property –

CLEAR & MAINTAIN meadows, pastures, roadsides, fencelines, walking paths with ease!

CUT tall grass, weeds, brush, brambles – even saplings!

CHOP/MULCH most everything you cut!

44" Cut Tow-Behind models also available!

PROFESSIONAL POWER DR FOR HOMEOWNERS

Get a FREE DVD and Catalog

TOLL FREE **888-200-3210**
www.DRfieldbrush.com

65240X © 2009

3 Pour in filler until it's even with the driveway surface. Smooth out overfilled areas with a putty knife. Check for voids in the filler the next day and refill them.

4 Saw around heavily cracked areas using a circular saw and diamond blade. Chisel out all the loose asphalt down to the gravel base.

5 Fill the cutout with new asphalt. Be sure to repack the gravel base first. Then add asphalt in 1-in. layers, packing each layer with a hand tamper.

6 Cut back invading grass along the driveway. Left alone, grass roots will enlarge any cracks and gradually destroy the driveway from the edges inward.

ally indicate that the base has softened. Water will settle in this spot and make the problem worse. Fillers will help for a while, but sooner or later you'll have to cut out and patch the cracked area. Cut the asphalt using a diamond blade ($30) in your circular saw (**Photo 4**). Then repack the gravel base by pounding it with a 6-ft. 4x4 or a hand tamper ($25). Fill the cutout and pack with a 4x4 or hand tamper (**Photo 5**).

You can buy asphalt patching material ($10 per 40 lbs.) at home centers and hardware stores, but it isn't nearly as durable as regular hot asphalt. For better performance, seal coat the patch after about six months. And for areas larger than a few square feet, we recommend that you hire a pro. (See "Talk to a Pro," p. 75.)

Clean up edges every two years

Asphalt edges are especially prone to cracking because the base erodes at edges more easily. Grass invades the cracks and increases erosion. So every other year, grab a shovel or lawn edger and cut back the grass (**Photo 6**). Then clean out and fill the cracks.

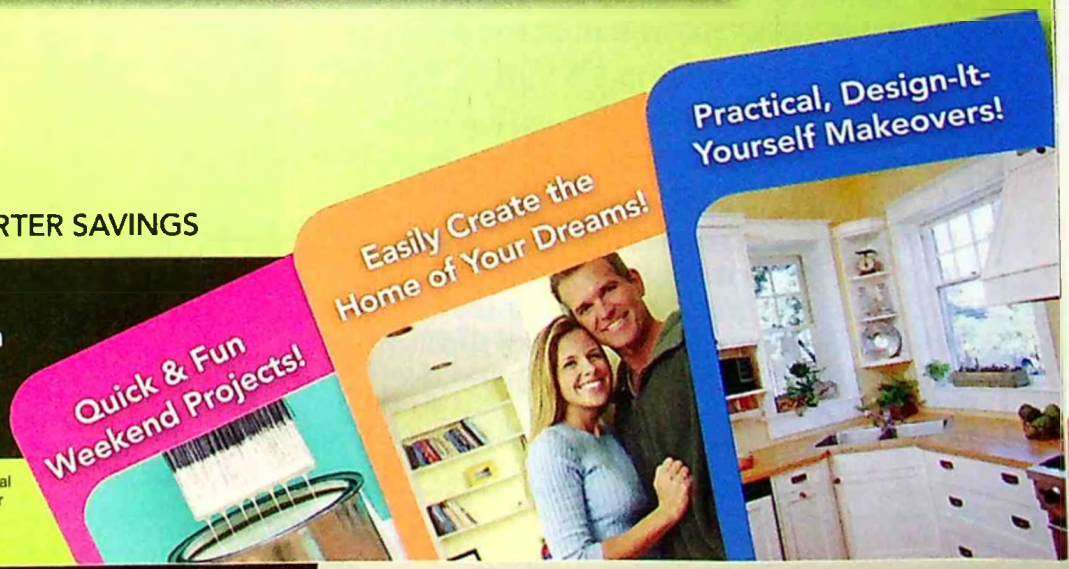
Seal coat every four to five years

The purpose of a seal coat is to protect the asphalt against sun and water and to fill small cracks. It also dresses up the asphalt by covering fillers and patches. You don't need to do it every year. In fact, seal coat will peel if there are too many layers, and you'll permanently ruin the appearance of the driveway.

Home centers carry several sealers ($10 to $30 per 5-gallon bucket). Buy the best one (the most expensive!), especially if you're sealing your driveway for the first time. A better sealer means better long-term adhesion. Adhesion is vital, because you'll apply more coats in future years, and each fresh coat is only as good as the coat beneath it.

Inspiring Ideas For Every Space

BRAND-NEW MAGAZINE!



EXCLUSIVE 50% OFF CHARTER SAVINGS

Subscribe today at

www.FreshHomeMag.com

or call toll-free **1-800/344-6913**

(mention code MJEP2Z).

Fresh Home is published 4 times per year at the annual cover price of $19.96. Canadian subs $21.96 CDN per year plus 5% GST (or 13% HST, where applicable). Please allow 4-6 weeks for delivery of your first issue.

7 Coat oil-stained spots with a primer before seal coating. Without thorough cleaning and primer, the seal coat won't stick to oily areas.

8 Apply the sealer around the perimeter of the driveway. Protect walls and the adjacent concrete with wide masking tape.

9 Spread the sealer by working back and forth across the driveway. Pull the broom or squeegee at an angle to plow the excess sealer onto the uncoated area.

To ensure good sealer adhesion, the driveway must be clean and dry. Fill cracks and edge the driveway at least a week in advance. Scrub with a stiff broom. Then sweep or blow debris off with a leaf blower. You can use a garden hose or a pressure washer, but you'll have to wait for it to dry.

Sealer won't stick to oily spots left by a drippy car. First scrape off the oily gunk with a putty knife. Then apply a detergent (such as dishwashing liquid) or buy the sealer manufacturer's cleaner and scrub. After you rinse, examine the spot. If you see an oil film on the rinse water or if water beads up on the spot, scrub again. You can wash the entire driveway surface at this time, since you'll have to wait one or two days for the asphalt to dry anyway. When it's dry, apply primer ($10 per qt.: **Photo 7**) to the spots.

tip

If you're a rookie, work on a cooler, more humid day to slow drying so you have more time to spread the sealer smoothly.

thefamilyhandyman.com

- To see how pros install a whole new driveway, go to thefamilyhandyman.com/driveway.
- For concrete repair help, go to thefamilyhandyman.com/concreterepair.
- Driveway sinking in front of the garage? Find a do-it-yourself solution at thefamilyhandyman.com/sinkingdriveway.

Before you apply sealer, check the weather forecast and the sealer's label to make sure you'll get good drying conditions. Seal coats are water-based, and a rainfall before they dry will ruin them. Drying times will slow in cooler and more humid conditions.

Coat the edges first using a stiff brush such as a masonry brush ($6; **Photo 8**). Then coat the entire driveway using a seal coating broom or squeegee ($12; **Photo 9**). Stir the sealer before application even if the label claims it's a no-mix formula. Seal coating isn't difficult, but it is messy. Wear old shoes and clothing you can toss. The worst mistake is stepping in drips, then tracking the seal coat across concrete or inside your home.

Be sure to read the manufacturer's directions and follow the recommended spread rate. Take care not to lay it on too thick. Puddles or thick areas will probably peel. Work the sealer into the surface. Although some sealers require only one coat, it's better to have two thin coats than one thick coat. And you're less likely to leave ridges or brush marks.

Finally, surround the driveway with stakes and string or tape. Keep everyone, including pets, off the finished surface until it dries. Otherwise you might find black, gooey paw prints on your kitchen floor!

For more information

Visit the National Pavement Contractors Association education site: PavementPro.org.

Black Jack Products, gardner-gibson.com

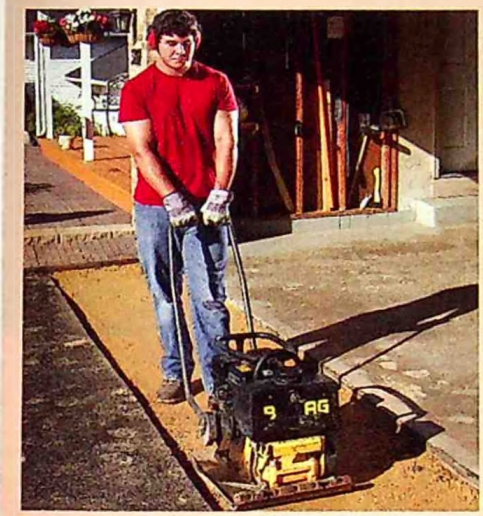
Jet-Black professional sealcoating, (888) 538-2525, jet-black.com

Latexite Products, (800) 851-5606, latexite.com

Talk to a pro

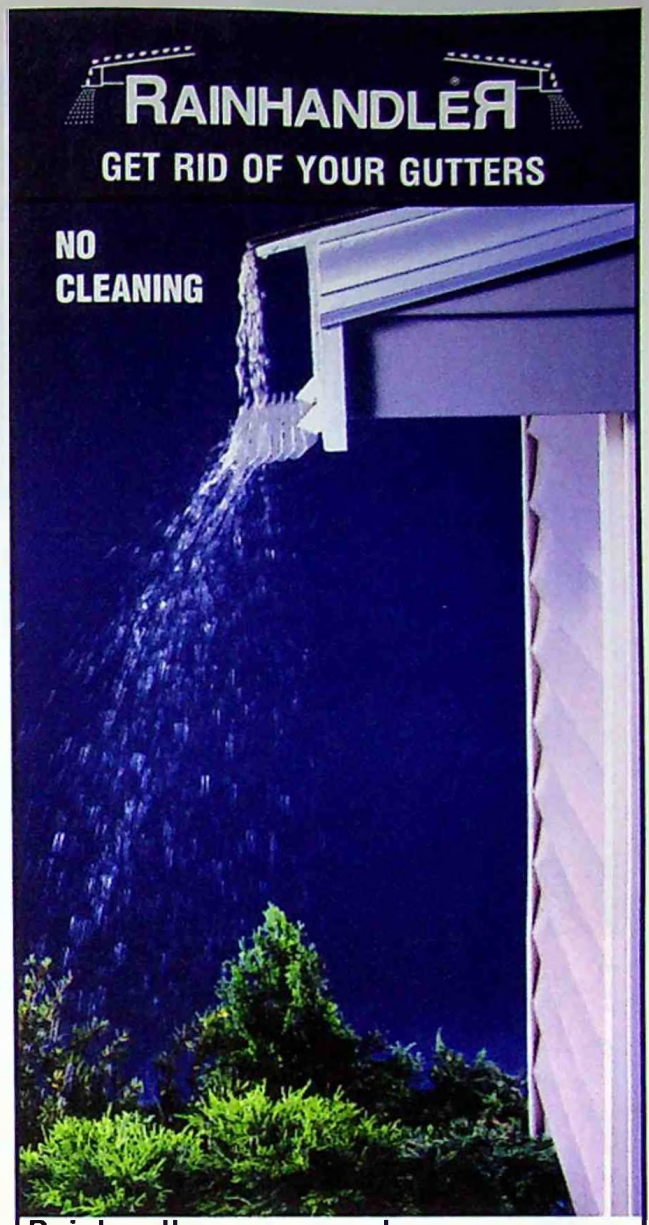
Before diving into an asphalt driveway repair project, call in a local pro for an estimate. (Look in your yellow pages under "Asphalt.") That way, you can compare the estimate with the cost of doing it yourself. The tools and materials purchased from a local home center for our 700-sq.-ft. driveway cost about $130. The pro bid was $300. Keep in mind that a quality professional job will include hot-melt crack filler and hot asphalt patching material. These materials provide longer-lasting repairs than you can make yourself. And if your driveway has lots of heavily cracked areas or large potholes, the gravel base probably needs repair; that's a job best left to pros.

If you decide to hire a contractor, avoid those who give bids over the phone. Good contractors will examine your driveway and give you a detailed bid. They should also tell you the products they'll use and all the steps in their process. Seal coating warranties are often for no more than a year. But patches should be guaranteed for the life of the driveway.



For big repairs, pros cut out the bad section, add more base material, pack it with a plate compactor and then pack in new hot asphalt.

If large areas of your driveway look like this, call in the pros. A spider web of deep cracks usually calls for major base repair and lots of new asphalt.



Rainhandlers are open louvers-no way to trap leaves, etc. They never need cleaning. Roof runoff is converted to gentle drops in a wide swath away from your home. No ground erosion. Easy installation. GREEN - Conserves precious rain. Invisible on your home

For FREE info or to order call or fax
Phone: 800-942-3004, Fax: 800-606-2028
Or write RainhandleR
Dept FH0509
2710 North Ave., Brideport, CT 06604
www.rainhandler.com/fh
Buy on-line! Enter code FH0509 at check out for extra 10% SAVINGS

INSTANT PROJECT

by Eric Smith
editors@thefamilyhandyman.com

Art Direction BECKY PFLUGER · Photography MIKE KRIVIT · Editor ELISA BERNICK

2-hour, $25 campfire bench

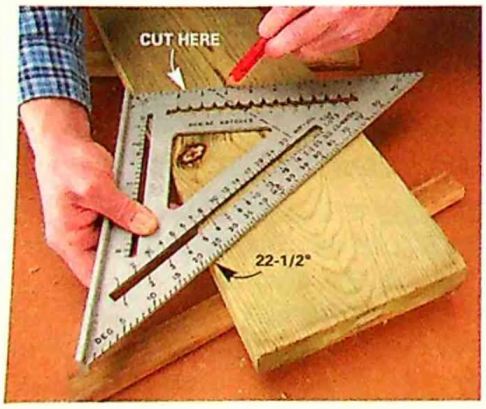
Need outdoor seating in a hurry? This simple bench, based on author and ecologist Aldo Leopold's classic design, can be constructed in a couple of hours. All it takes is two boards and 18 screws, for a cost of less than $25.

Cut the legs from a 2x8 x 10-ft. piece of rot-resistant wood (**Photo 1**). Cut the seat and backrest from an 8-ft. 2x8.

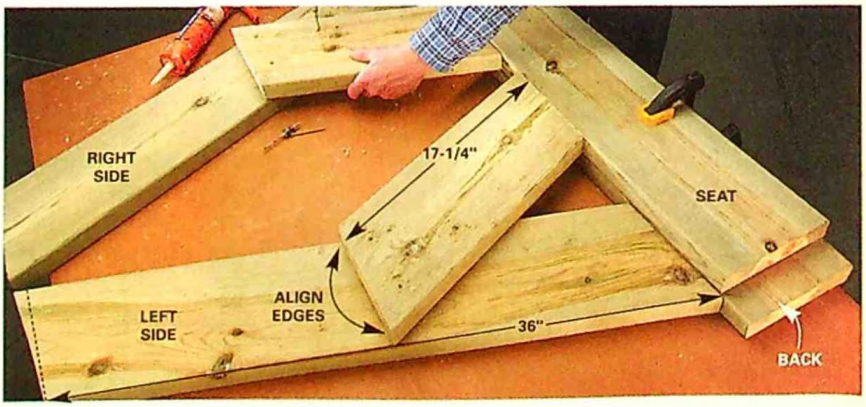
Lay out and assemble the sides as mirror images, using the seat and back pieces for alignment (**Photo 2**). Join the legs with three 2-1/2-in. deck screws and construction adhesive. Predrill all the screw holes with a countersink bit to avoid splitting the wood. Finally, set the sides up parallel to each other and glue and screw the seat and back into place. Finish the bench with a coat of exterior oil or stain.

Cutting List

(All from two 10' 2x8s)
Rear legs: 2x8 x 17-1/4" (22-1/2-degree cuts)
Front legs: 2x8 x 36" (22-1/2-degree cuts)
Seat: 2x8 x 42"
Back: 2x8 x 45"



1 Starting at one end of a 10-ft. board, make the same 22-1/2-degree cut five times to create the four legs.



2 Clamp the seat and back to the workbench as a stop, then predrill, glue and screw the rear legs to the front legs.

30 DAYS OF PRIZES!

COMING IN OUR JUNE ISSUE!

Great DIY Giveaway

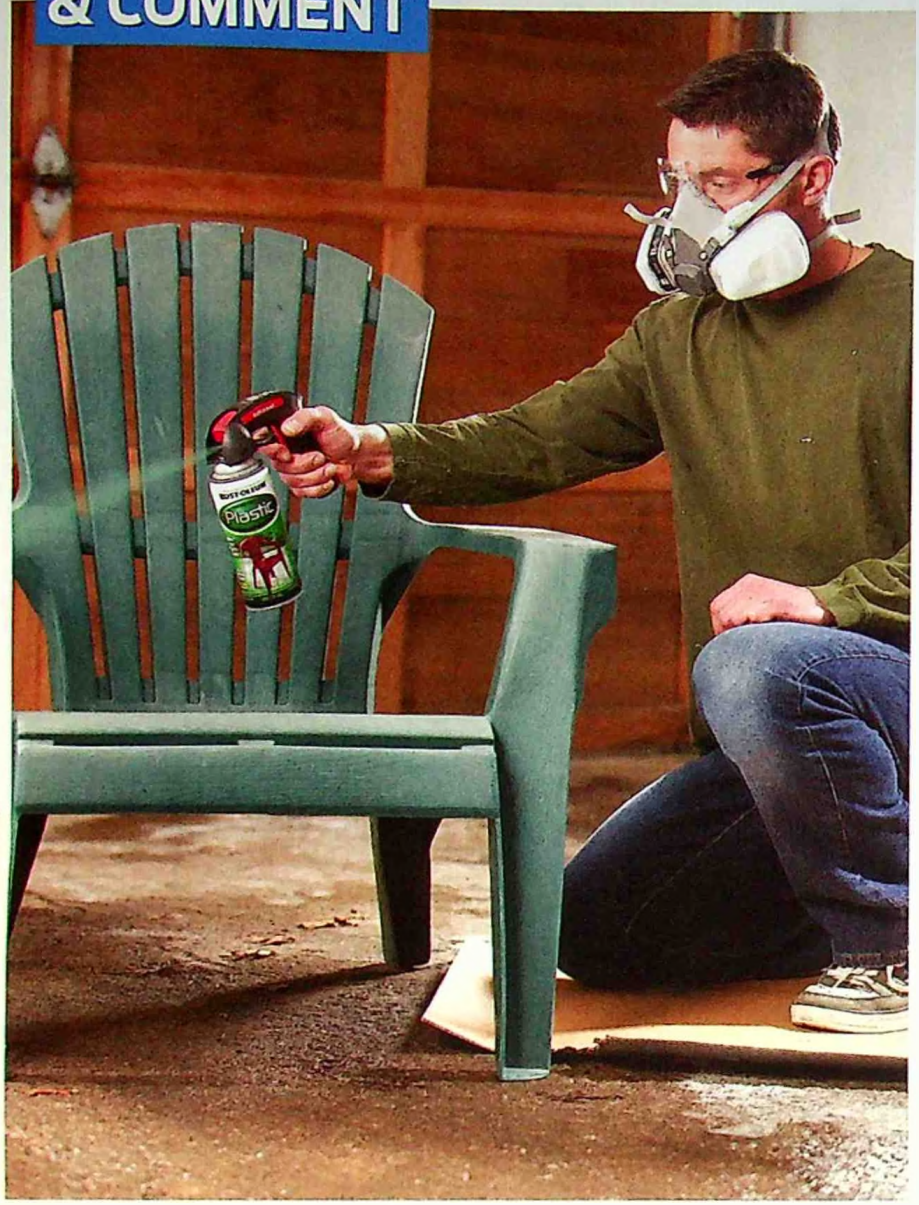
Prizes every day for 30 days plus a Grand Prize—a $1,000 home center gift card.

Win cordless tools, a monster miter saw, air compressors, shop tools and gear, garage organizers, job site radio, gas grill, enough paint for a whole house, and more! Enter as often as you like. See your June issue of The Family Handyman for details.

No purchase necessary to enter or win. Purchase will not improve your chances of winning. Sweepstakes is open to legal residents age 18 or older of the U.S., its territories and possessions. VOID WHERE PROHIBITED. Sweepstakes sponsored by The Reader's Digest Association, Inc., the publisher of The Family Handyman.

QUESTION & COMMENT

by Rick Muscoplat
editors@thefamilyhandyman.com



Art Direction BOB UNGAR · Photography Tom [illegible]

QUESTION

Healthy spray painting

I bought spray paint to update my lawn furniture, and the clerk recommended a respirator. The cheapest one was $30, but I wonder if I can get by with one of those $5 masks. It seems like overkill to spend $30 on a respirator for a small spray paint job.

Michael Liu, Salinas, CA

Before you pass on the $30 respirator, check out this warning from a typical spray can label: "Repeated or prolonged exposure to these chemicals without the use of a proper respirator can cause permanent brain damage, as well as damage to your lungs." But solvent-based spray paints aren't the only products that present a health hazard. You'll find similar warnings even on water-based spray paints and many insecticides.

The less expensive N95 particulate filtering respirators you mentioned (see Feb. '09, p. 76), do a great job of filtering out particulate matter. But they don't adsorb toxic chemical vapors. To do that, you need activated carbon. Most $30 (and up) respirators have a P100 (100 percent efficiency and oil compatible) prefilter and an activated carbon filter for the chemical vapors. However, the $30 carbon filter respirators sold at home centers won't protect you against every single toxic chemical listed on every manufacturer's warning label. The bottom line is, any carbon filter respirator rated for solvents and paint is better than a $5 particulate respirator.

To save money over the long run, buy a respirator that accepts replaceable filter cartridges. But before you shop online, check out the availability of replacement filters at your local hardware or home center. You don't want to be searching every store in town for the right filter in the middle of a project.

Protect yourself from chemical vapors with a high-quality respirator. Pick one that fits well and feels good, and be sure it's easy to find replacement filters.

thefamilyhandyman.com

Want to learn how to run an airless sprayer? Go to thefamilyhandyman.com/airlesssprayer.

HARBOR FREIGHT TOOLS

Quality Tools at the LOWEST Prices

TIRED OF FEELING SCREWED?

Our team of tool professionals buy factory direct, saving you money at a time when you need it most! We have slashed our prices with SUPER COUPON SAVINGS!

If you don't see it here, come to one of our 330 STORES NATIONWIDE and use this

15% OFF Coupon

on any of our 7,000 products.

NOBODY BEATS OUR QUALITY, SERVICE AND PRICE!

Woodworking Hand Tools, Clamps, Machinery, Compound Miter Saws, Sanders, Air Filtration, Power Tools, and Accessories!

WHY WE HAVE 10 MILLION SATISFIED CUSTOMERS:

- ✓ We Buy Factory Direct and Pass the SAVINGS on to YOU!
- ✓ Shop & Compare Our Quality Brands Against Other National Brands
- ✓ 7000 Tool Items In-Stock!
- ✓ NO HASSLE RETURN POLICY
- ✓ Family Owned & Operated

LIFETIME WARRANTY
ON ALL HAND TOOLS!

SUPER COUPON!

15% OFF ANY SINGLE ITEM!

Bring this coupon and Save 15% on one single item purchased at Harbor Freight Tools. Cannot be used with any other discount or coupon. One coupon per purchase. One coupon per customer. Coupon not valid on prior purchases or purchase of gift cards or purchase of extended service plans. Offer good on in-stock merchandise only. Savings discount percentage off Harbor Freight Tools current prices, including sale prices. This coupon cannot be duplicated in any manner including photocopies and computer printouts. Original coupon must be presented in order to receive the discount. All Campbell Hausfeld products are excluded from this offer. This offer is not valid for beverage items sold in our retail stores. Valid only at Retail Stores through 10/29/09.

89035307

See HarborFreightusa.com/Handyman for additional SUPER COUPONS

SUPER COUPON!

CHICAGO Electric Power Tools

7" BENCHTOP TILE SAW

LOT NO. 40315

SAVE 37%

$49.99

REG. PRICE $79.99

72530876

HARBOR FREIGHT TOOLS - LIMIT 1

These valuable coupons are only good when presented at your nearest Harbor Freight Tools store. Offer Ends 10/29/09.

Coupons valid in Retail Store Only. Coupon not valid on prior purchases. Coupon cannot be bought, sold, or transferred. This coupon cannot be duplicated in any manner including photocopies and computer printouts. Original coupon must be presented in order to receive the discount.

SUPER COUPON!

CHICAGO Electric Power Tools

MULTI-FUNCTION POWER TOOL

LOT NO. 65700

CUTTING

SANDING

SCRAPING

SAVE 35%

$38.99

REG. PRICE $59.99

SIMILAR TOOLS SOLD NATIONALLY AT $400!

85213122

HARBOR FREIGHT TOOLS - LIMIT 1

These valuable coupons are only good when presented at your nearest Harbor Freight Tools store. Offer Ends 10/29/09.

Coupons valid in Retail Store Only. Coupon not valid on prior purchases. Coupon cannot be bought, sold, or transferred. This coupon cannot be duplicated in any manner including photocopies and computer printouts. Original coupon must be presented in order to receive the discount.

SUPER COUPON!

TREE PRUNER

LOT NO. 9712

One Stop GARDENS

SAVE 44%

$9.99

REG. PRICE $17.99

78797474

HARBOR FREIGHT TOOLS - LIMIT 1

These valuable coupons are only good when presented at your nearest Harbor Freight Tools store. Offer Ends 10/29/09.

Coupons valid in Retail Store Only. Coupon not valid on prior purchases. Coupon cannot be bought, sold, or transferred. This coupon cannot be duplicated in any manner including photocopies and computer printouts. Original coupon must be presented in order to receive the discount.

SUPER COUPON!

18 GAUGE 2-IN-1 NAILER/ STAPLER

LOT NO. 97524

$14.99 Nails and staples sold separately

REG. PRICE $29.99

SAVE 50%

78815537

HARBOR FREIGHT TOOLS - LIMIT 1

These valuable coupons are only good when presented at your nearest Harbor Freight Tools store. Offer Ends 10/29/09.

Coupons valid in Retail Store Only. Coupon not valid on prior purchases. Coupon cannot be bought, sold, or transferred. This coupon cannot be duplicated in any manner including photocopies and computer printouts. Original coupon must be presented in order to receive the discount.

SUPER COUPON!

3 PIECE TITANIUM NITRIDE COATED M2 HIGH SPEED STEEL STEP DRILLS

LOT NO. 91616

DRILL MASTER

SAVE 46%

$7.99 REG. PRICE $14.99

25527979

HARBOR FREIGHT TOOLS - LIMIT 1

These valuable coupons are only good when presented at your nearest Harbor Freight Tools store. Offer Ends 10/29/09.

Coupons valid in Retail Store Only. Coupon not valid on prior purchases. Coupon cannot be bought, sold, or transferred. This coupon cannot be duplicated in any manner including photocopies and computer printouts. Original coupon must be presented in order to receive the discount.

SUPER COUPON!

Pittsburgh

4 PIECE STEEL ADJUSTABLE WRENCH SET

LOT NO. 903

$6.99

REG. PRICE $13.99

SAVE 50%

60937554

HARBOR FREIGHT TOOLS - LIMIT 1

These valuable coupons are only good when presented at your nearest Harbor Freight Tools store. Offer Ends 10/29/09.

Coupons valid in Retail Store Only. Coupon not valid on prior purchases. Coupon cannot be bought, sold, or transferred. This coupon cannot be duplicated in any manner including photocopies and computer printouts. Original coupon must be presented in order to receive the discount.

SUPER COUPON!

SIPHON PUMP KIT

LOT NO. 3878/66418

Item 3878 shown

$3.99 REG. PRICE $9.99

SAVE 60%

46925723

HARBOR FREIGHT TOOLS - LIMIT 1

These valuable coupons are only good when presented at your nearest Harbor Freight Tools store. Offer Ends 10/29/09.

Coupons valid in Retail Store Only. Coupon not valid on prior purchases. Coupon cannot be bought, sold, or transferred. This coupon cannot be duplicated in any manner including photocopies and computer printouts. Original coupon must be presented in order to receive the discount.

If You Buy Tools Anywhere Else You're Throwing Your Money Away!

330 STORES NATIONWIDE

TO FIND THE STORE NEAREST YOU CHECK:
1-800-657-8001
or HarborFreightusa.com/Handyman

QUESTION

See visitors on a bigger screen

I have a peephole in my front door. But as I get older, I'm finding it harder to see through it. I'm guessing lots of baby boomers have this problem. Is there something better for us "old folks"?

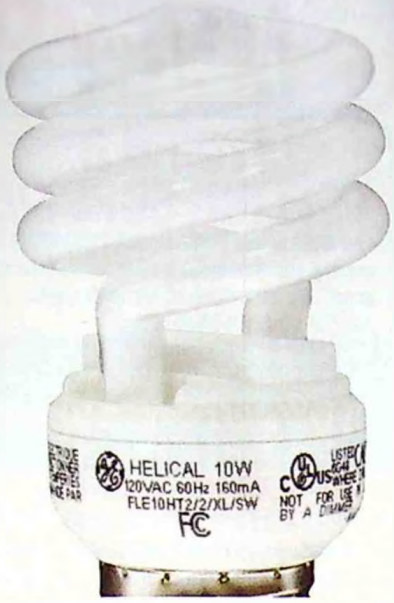
Diane Retkowski, St. Paul, MN

Replace your old peephole with one of the newer in-door viewers. It's a low-cost solution ($30) that uses prisms and a lens to project the visitor's image onto a 2-in. screen. The large screen allows you to see visitors from 5 to 7 ft. behind the door. You can get an in-door viewer at SecurityProductsinc.com.

You'll have to drill a new 2-3/8-in. hole. Place it so the new hole eliminates the existing hole at the same time. You can probably leave the old peephole in place while you drill the new hole (to provide a firmer surface and prevent pilot bit wandering). Make sure the drill is level and drill until the pilot bit comes out the other side of the door. Then remove the hole saw and drill from the opposite side (to prevent splintering). You'll also need to drill two 1/8-in. holes for the retaining ring anchor pins (use the template to mark the location for the small holes). To finish the installation, insert the viewer and screw it onto the lens prism.

The new viewer provides a much brighter image, but since it uses prisms, be aware that the image will be flopped left to right. As an added benefit, the viewer optics prevent visitors from peering into your house (a flaw in old-style peepholes) or from noticing that you're even using the viewer.

Chuck up a 2-3/8-in. hole saw and cut a large opening for a new door viewer. Screw it in place and see who's at the door from 7 ft. away.



COMMENT

Are compact fluorescent bulbs really "green"?

Several readers questioned whether CFLs really are "green" since they contribute mercury to the waste stream if they're thrown into the trash or broken.

Each CFL contains about 4 milligrams of mercury, but most of that gets bound to the inside of the bulb as it is used. Only about 11 percent is released into the air and water if the bulb is sent to a landfill. When you consider the amount of mercury released into the environment by coal-fired electrical generating plants, CFLs look even better. Here's an example: If a 13-watt CFL burns out early at 2,000 hours (25 percent of its rated life) and gets (illegally) buried in a landfill, the total mercury pollution is .7 milligrams. The electricity required to burn a 60-watt incandescent bulb for the same 2,000 hours generates double the mercury (1.45 milligrams). So even when the bulb isn't recycled as the law requires—the worst-case scenario—CFLs are still better for the environment.

To find the nearest recycling center for your CFLs, go to earth911.org and enter "CFL" and your location in the search bars.

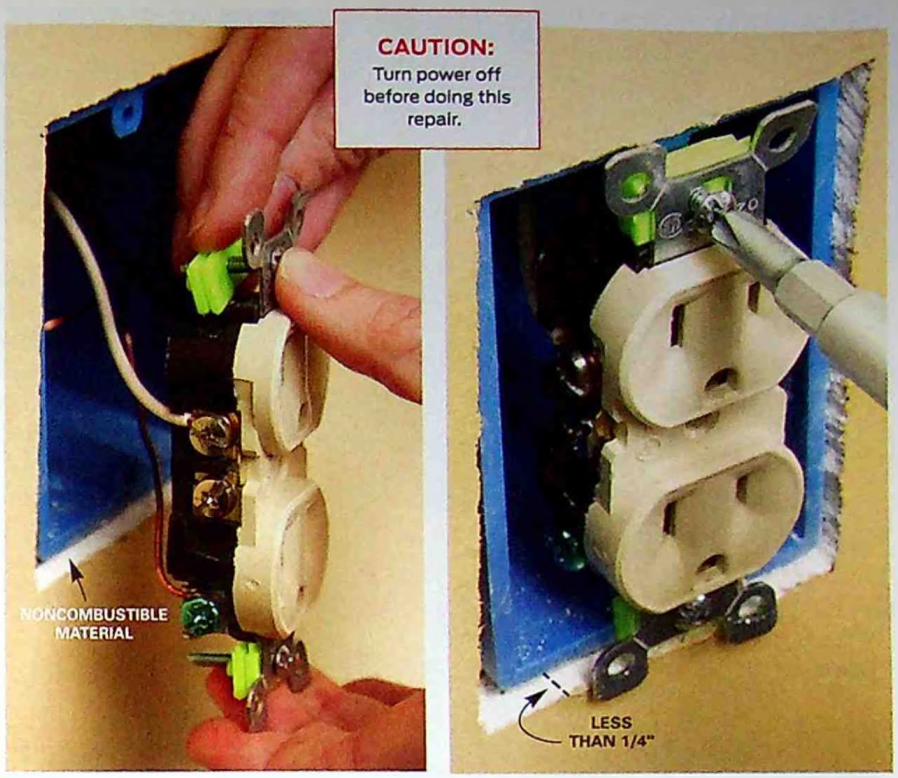
QUESTION

Easy fix for wobbly outlets

In our kitchen, there's a loose electrical outlet that wobbles every time I plug an appliance into it. Is this dangerous? Can I fix it myself?

Brian Larson, Brainerd, MN

The constant movement of loose electrical outlets can loosen the wires connected to the outlet and create dangerous arcing. Luckily, the fix is simple. If the outlet is recessed less than 1/4 in. in noncombustible material, you can fur it out with outlet shims as shown. If it's recessed more than 1/4 in., use a plastic extension ring. You'll find both in the electrical department at home centers.



1 Turn off the power and check with a voltage tester to make sure there's no power to the outlet. Unscrew the outlet and add enough shims to bring the outlet flush to the wall.

2 Screw the outlet to the box and reinstall the cover plate. Turn the power back on.

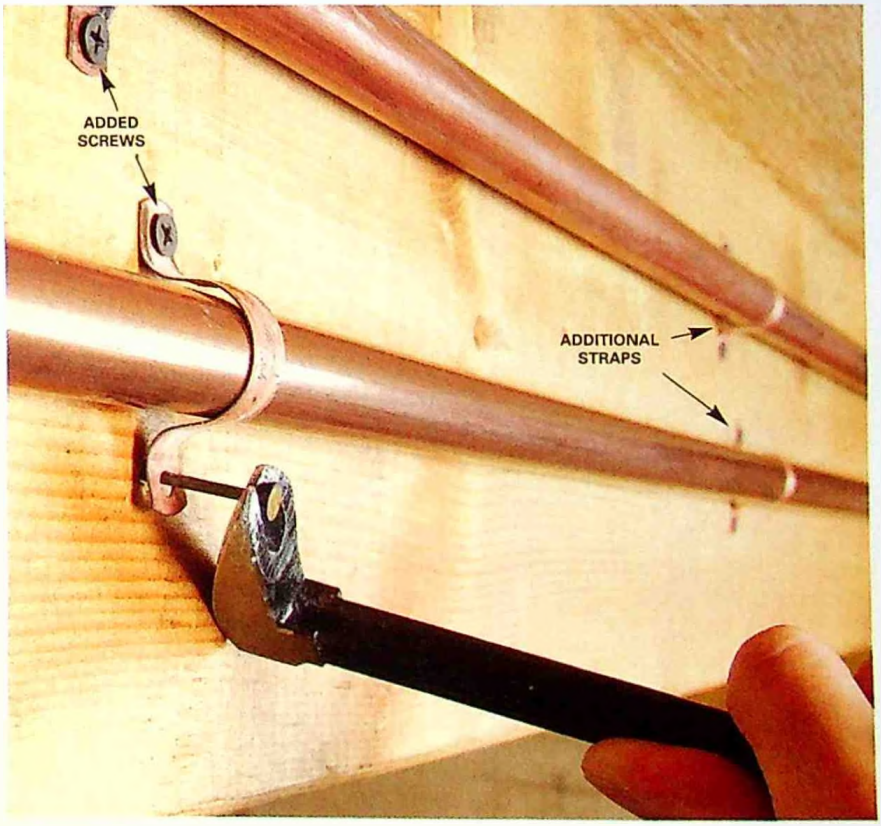
QUESTION

Quiet creaking pipes

My water pipes creak every time I fill the tub, take a shower or run the dishwasher. How can I stop the creaking?

Jim Collier, Durango, CO

Usually the hot water pipes do most of the "talking" because they expand and contract as the water temperature changes inside them. That movement eventually loosens the nails at some pipe straps. The pipes then rub against the floor joists, making that annoying creaking sound. The best way to solve the problem permanently is to add more pipe straps (they're cheap, so add one per joist) and replace all the existing nails with screws.



1 Replace pipe strap nails with 1-5/8-in. drywall coarse-thread drywall screws.

QUESTION

Wireless switch upgrade

I'm tired of groping in the dark for the light's pull chain in my work room. I'd like to control the light with a wall switch but since the room is finished, I'd have to tear up the walls and ceiling to run the wires. What are my other options?

Alex Reyes, San Angelo, TX

You can save yourself *a lot* of hassle by installing a wireless wall switch. One option, a Thomas & Betts HW2162 kit ($27 from home centers or smarthomeusa.com), includes a screw-in radio receiver that installs between the porcelain fixture and the bulb. The battery-powered switch mounts on any wall. Although it's inexpensive, it's not very attractive and only powers a 60-watt incandescent bulb (it won't work with CFLs or enclosed fixtures).

If you plan to install an enclosed fixture or don't want to deal with dead batteries, buy a self-powered wireless switch kit ($128) from econoswitch.com/kits. The switch never needs batteries. It sends a wireless coded command to the relay mounted inside the ceiling electrical box. You can mount the wall switch anywhere on the wall

PATIO PAL® PLASTIC BRICK LAYING GUIDES

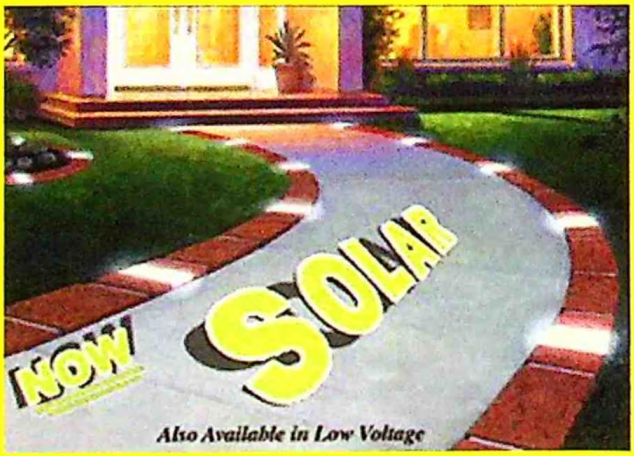
Laying a Brick Patio? Nothing Works Faster!

- ALIGNS BRICKS OR BLOCKS PERFECTLY
- BLOCKS OUT ANY WEED GROWTH
- HOLES ALLOW FOR COMPLETE DRAINAGE
- CREATE MANY MAINTENANCE FREE DESIGNS

Credit Cards are welcomed for your convenience!

*Argee Corporation *9550 Pathway Street * Santee, CA 92071*
*(619) 449-5050 * (800) 449-3030 * Fax (619) 449-8392*
*Email: argeecorp@sbcglobal.net * Web: www.argeecorp.com*

LET'S EDGE IT!® CREATE A BEAUTIFUL LIGHTED PLASTIC BRICK EDGING IN MINUTES



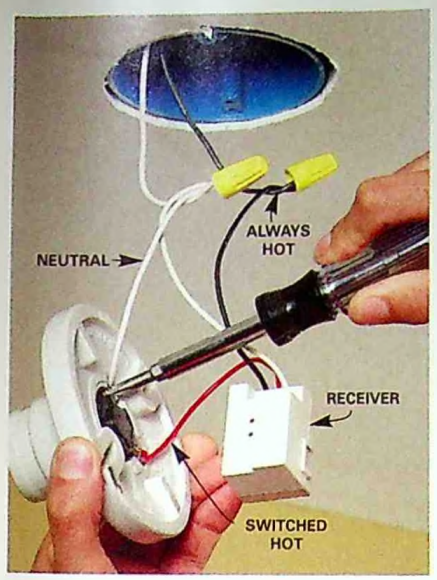
Also Available: Brick Edging Without Lights

Glamorize Your Yard... One Product Does It All!

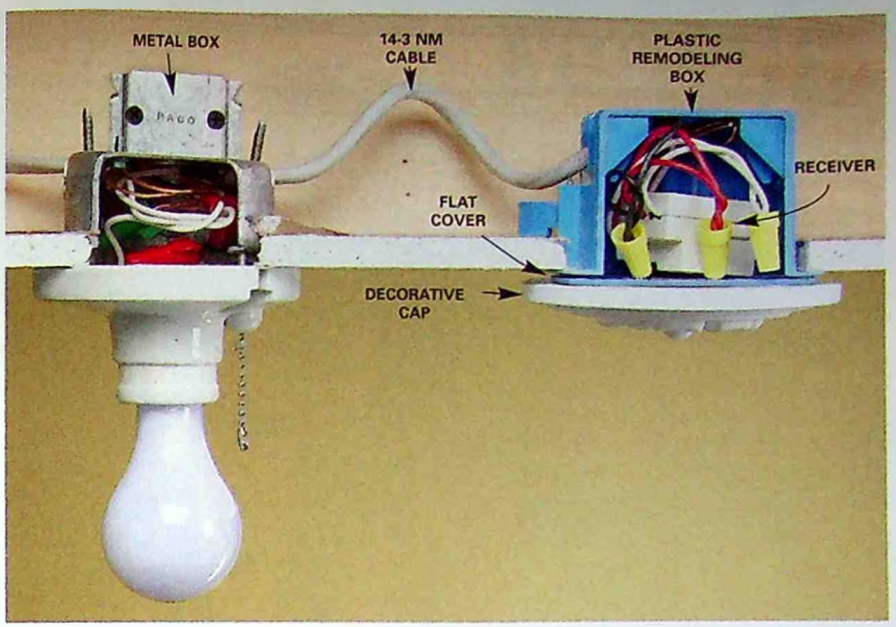
- JUST SNAP TOGETHER AND PRESS IN GROUND
- NO MORTAR, NO TRENCHING, NO HAULING
- CURVE IT OR GO STRAIGHT
- 2 YEAR WARRANTY...UV PROTECTED PLASTIC

Credit Cards are welcomed for your convenience!

*Argee Corporation *9550 Pathway Street * Santee, CA 92071*
*(619) 449-5050 * (800) 449-3030 * Fax (619) 449-8392*
*Email: argeecorp@sbcglobal.net * Web: www.argeecorp.com*



1 Disconnect the black and white wires from the porcelain fixture (power off). Connect them to the receiver/relay black and white wires. Then connect the red and white wires from the relay to the fixture.



2 If your pull chain fixture is mounted on a metal box, the receiver won't work because the metal will shield the radio signal. Either replace the box with a plastic one or mount a plastic remodeling box near it.

as long as it's within 100 ft. of the receiver/relay. You don't need a switch box!

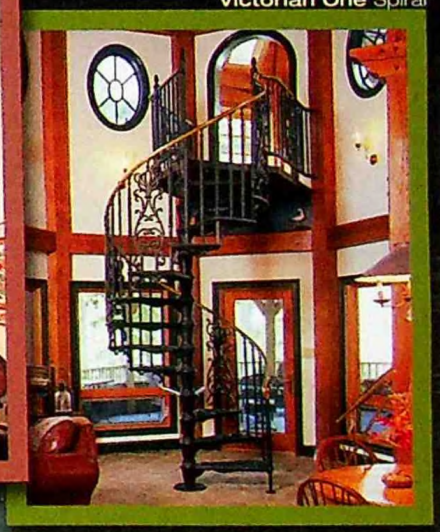
Turn off the power before you install the receiver/relay. Connect the relay to the fixture and the house wiring (see **Photo 1**). Then turn the power back on and follow the receiver/relay programming instructions. Test the light switch. Turn off the power one last time so you can safely tuck the receiver/relay into the electrical box and finish the installation.

Spiral Stair Kits

Add beauty & space saving functionality to any room.

Metal Spiral

Oak Spiral



Victorian One Spiral

From simple elegance to ornate Victorians...

you'll find the spiral stair kit that's right for your home.

THE IRON SHOP®

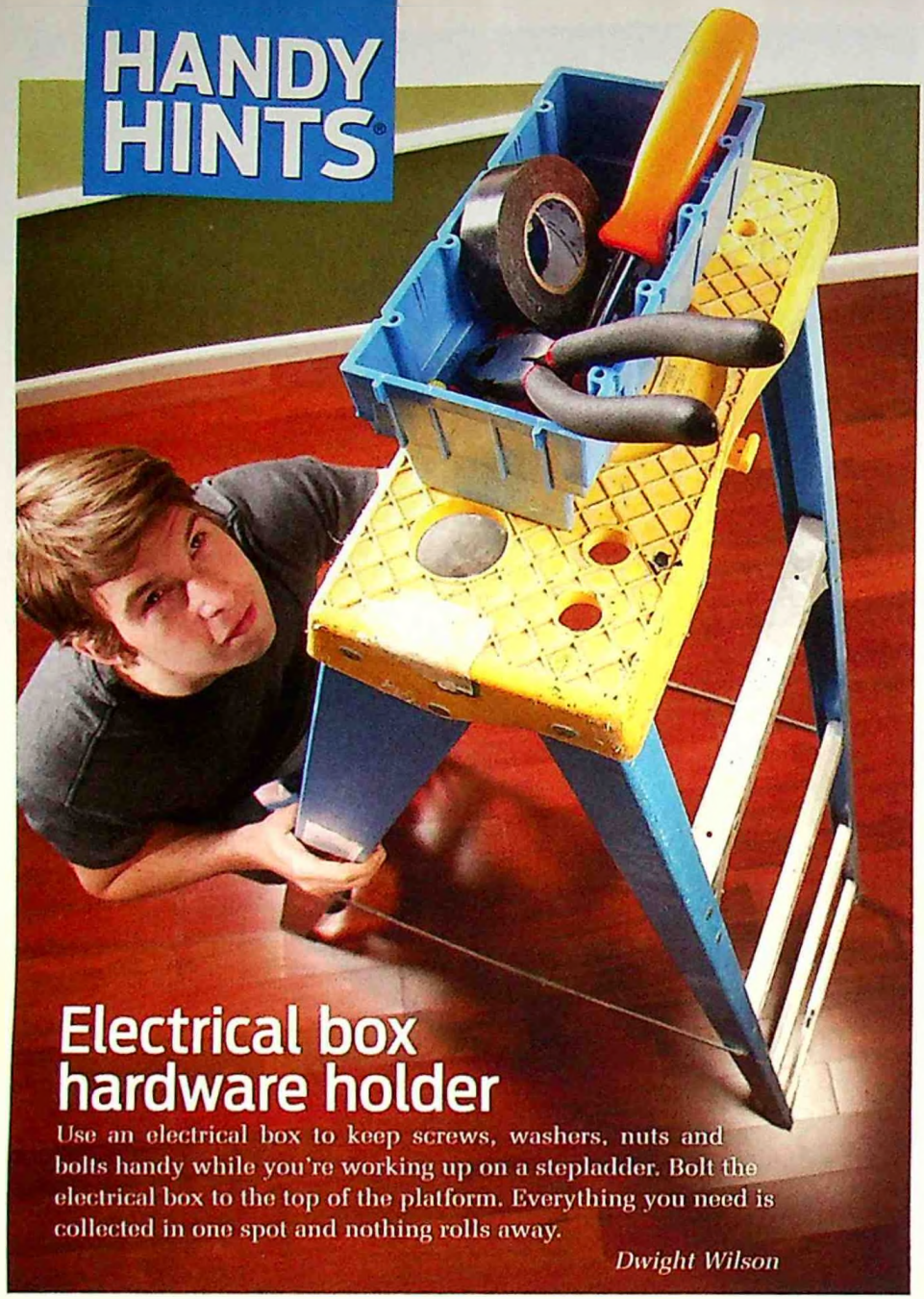
The Leading Manufacturer of Spiral Stair Kits®

Call for the FREE color Catalog

1-800-523-7427 Ask for Ext. FH

or visit our Web Site at

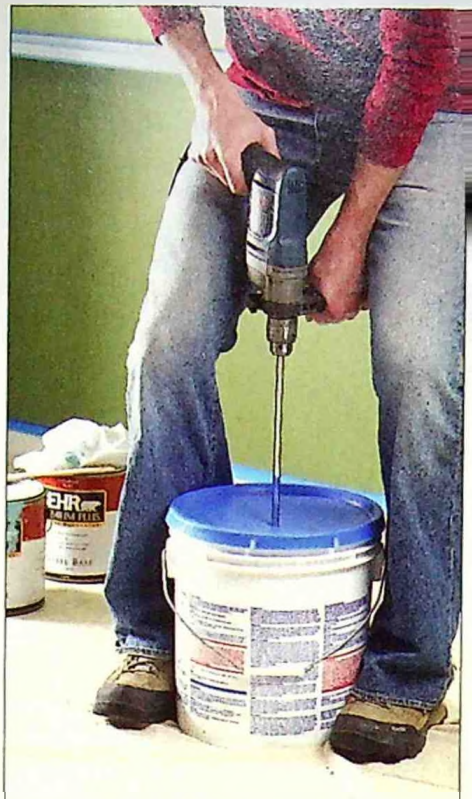
www.TheIronShop.com/FH



Electrical box hardware holder

Use an electrical box to keep screws, washers, nuts and bolts handy while you're working up on a stepladder. Bolt the electrical box to the top of the platform. Everything you need is collected in one spot and nothing rolls away.

Dwight Wilson



Tidy paint mixing

Mixing paint can get kind of messy, but here's a neat solution. Drill a hole through the paint can or bucket lid, insert a mixer through the hole and then put the lid back on the can. Now you can mix the paint without splashing it everywhere. This works great for driveway sealant and anything else you have to mix in large quantities.

Tom Wylie

"Hot" hose tip

If you're trying to repair a hose by installing a new fitting, you may find it pretty tough to wrestle the barbed end into a stiff rubber hose. Make it easier by softening the end of the hose in a bucket or tea kettle of hot water.

Bob Cleary

Art Direction BECKY PFLUGER · Photography TOM FENENGA

Sex Education For Me?®

Know-How is Still the Best Aphrodisiac.

There's No Such Thing as a "Born Lover"!

Sexual techniques must be learned. Even if you are a good lover, you can benefit from *The Better Sex® Video Series*. It is for normal adults who want to enhance their sexual pleasure. Watch it with someone you love.

the Better sex VIDEO SERIES® SEXPLORATIONS

America's Best-selling Sex-Ed Videos.

The Better Sex Video Series visually demonstrates and explains how everybody can enjoy better sex. Dr. Linda Banner, one of the country's most respected experts on sexuality, guides you through erotic scenes of explicit sexual practices including techniques for the most enjoyable foreplay and intercourse. Order *The Better Sex* videos today and take the first step to more enjoyment!

Shipped Unmarked For Your Privacy

All of our videos are shipped in plain packaging to assure your privacy.

2 FREE VIDEOS!

Art of Oral Sex is guaranteed to increase your love-making pleasure. *Art of Sexual Positions* shows you even more creative ways to ignite intense sexual excitement. Get both videos **FREE** with your order!

Order online at:
BetterSex.com™/ad
Use source code 8TFH34 at checkout to receive your **FREE** videos and $1.00 S&H.

WARNING: Couples who watch these explicit videos together may become highly aroused.

SPECIAL OFFER!
60% OFF – now only $19.95
2 FREE Videos, plus $1 S&H
The Family Handyman Readers Only!

FOR FASTEST SERVICE WITH CREDIT CARDS OR A FREE CATALOG, CALL 1.800.955.0888 EXT.8TFH34 24 HOURS

or mail to: Sinclair Institute, ext.8TFH34, PO Box 8865, Chapel Hill, NC 27515

Check Desired Format: VHS DVD

			ITEM NO.		TOTAL
Art of Oral Sex (Free with Purchase)			#3766		FREE
Art of Sexual Positions (Free with Purchase)					FREE
Vol. 1: Advanced Sexual Techniques & Positions			#3501	19.95	
Vol. 2: 22 Sex Secrets, Tips & Turn Ons			#3502	19.95	
Vol. 3: Erotic Sex Play & Beyond			#3504	19.95	
Buy The 3-Volume Set and Get 60% Off and $1 S&H!			#3506	19.95	
				postage & handling	1.00
				TOTAL	

☐ Bank Money Order ☐ Check ☐ VISA ☐ MasterCard ☐ AMEX ☐ DISCOVER

Card# _____ Exp. date _____

Plain Packaging Protects Your Privacy

Name _____

Address _____

City _____

State _____ Zip _____

Signature _____

(I CERTIFY THAT I AM OVER AGE 18)

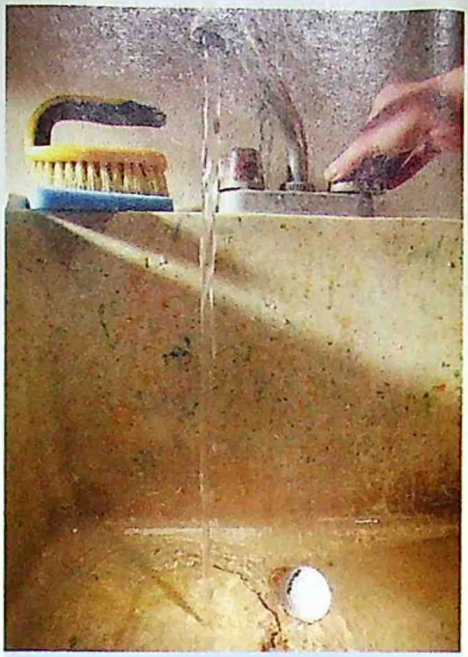
NC orders add 6.75% sales tax. Canadian Orders add U.S. $6 shipping. No cash or C.O.D. 8TFH34 ©2009 Sinclair Institute.

SINCLAIR Institute

Glue "preserves"

It's frustrating to reach for a previously opened can of PVC cement or tube of silicone sealer only to find that the products have solidified or become an unusable gooey mess. To preserve the life of opened products, store them in a glass jar with a good seal (like a mason jar). I've stored things for five years that are as good as new!

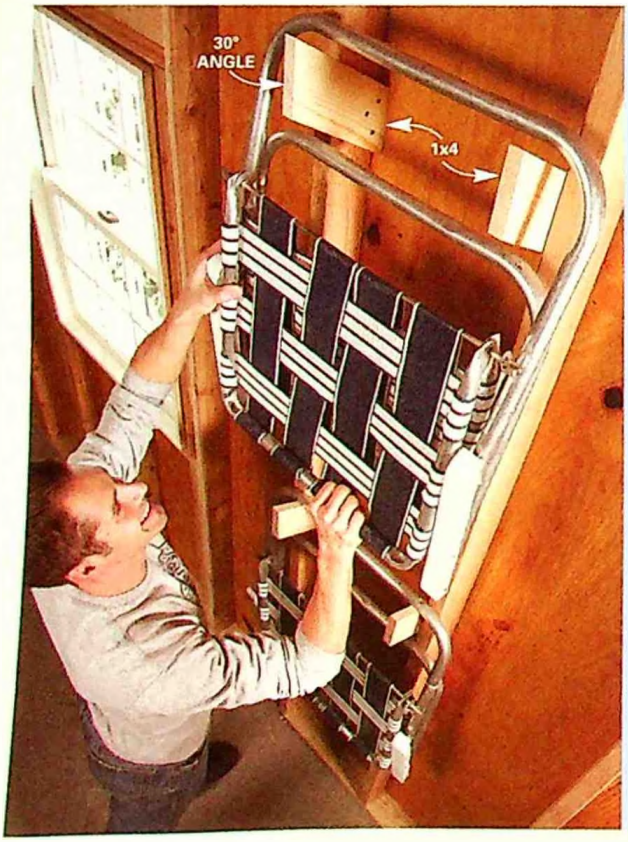
Donald R. Mateyka



Golf ball drain cover

When I golf, I don't want my ball to be anywhere near water, but at home I use one in the laundry tub. The drain cover on my tub doesn't fit tight anymore, and I find that a golf ball makes a good substitute. This works in most lavatory sink and bathtub drains too.

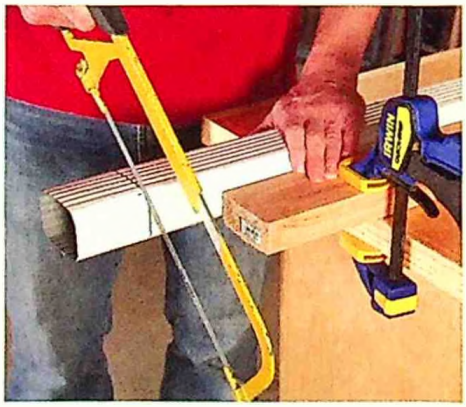
Deb Phillips



Easy chair storage

Here's how to store your lawn and folding chairs so they're out of your way. Take two pieces of 1x4 lumber (any scrap lumber will do) and create some simple, cheap and useful brackets on the wall. Cut each board 7-3/4 in. long with a 30-degree angle on both ends. Fasten pairs of these brackets with three 2-in. screws to the side of the exposed wall studs, directly across from each other, and you've got a perfect place to hang your chairs.

Larry Dodson



Secure hand sawing

I was trying to cut new downspouts with a hacksaw, and the darn things kept slipping around, making them almost impossible to cut. I clamped a 2x4 to my workbench, pressed the downspout up against it and attempted the cut again. This time the wood kept the downspout in place. You can use this tip to help you cut lots of slippery stuff—gutters, metal pipe, you name it.

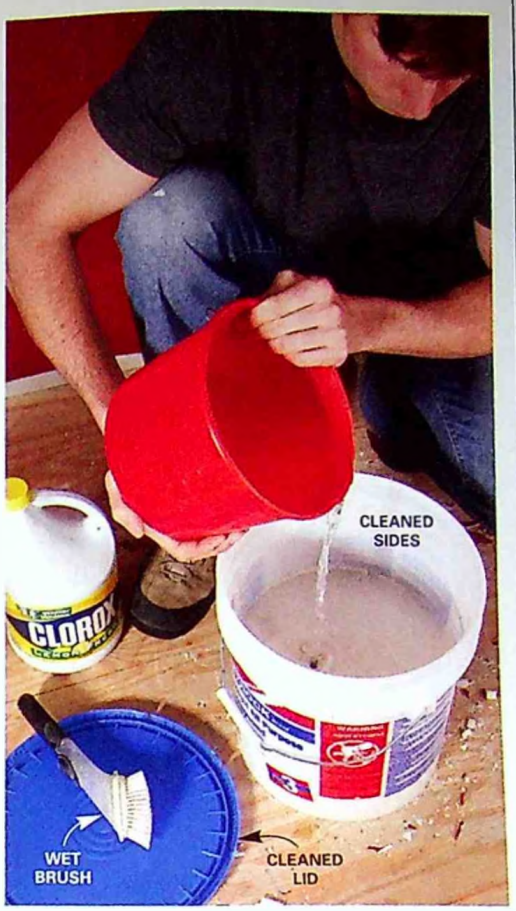
Travis Fielding

Keep joint compound fresh

When you have several wall patching or taping projects to do, it's cheaper and more convenient to buy a 5-gallon pail of taping compound than to get 1-gallon buckets. But if the compound sits around too long, it hardens—or worse, turns into a stinky mess.

Here's what to do after each time you use it. First clean every little bit of compound off the lid and the sides of the pail with a wet brush. Then pour about an inch of water on top of the compound. Add a capful of bleach to the water to keep nasty microbes at bay, then seal the top. For the next job, just pour off the water, mix the compound and get taping. Add more water and bleach when you're ready to store it again.

Ron Kercheval



Birdseed catcher

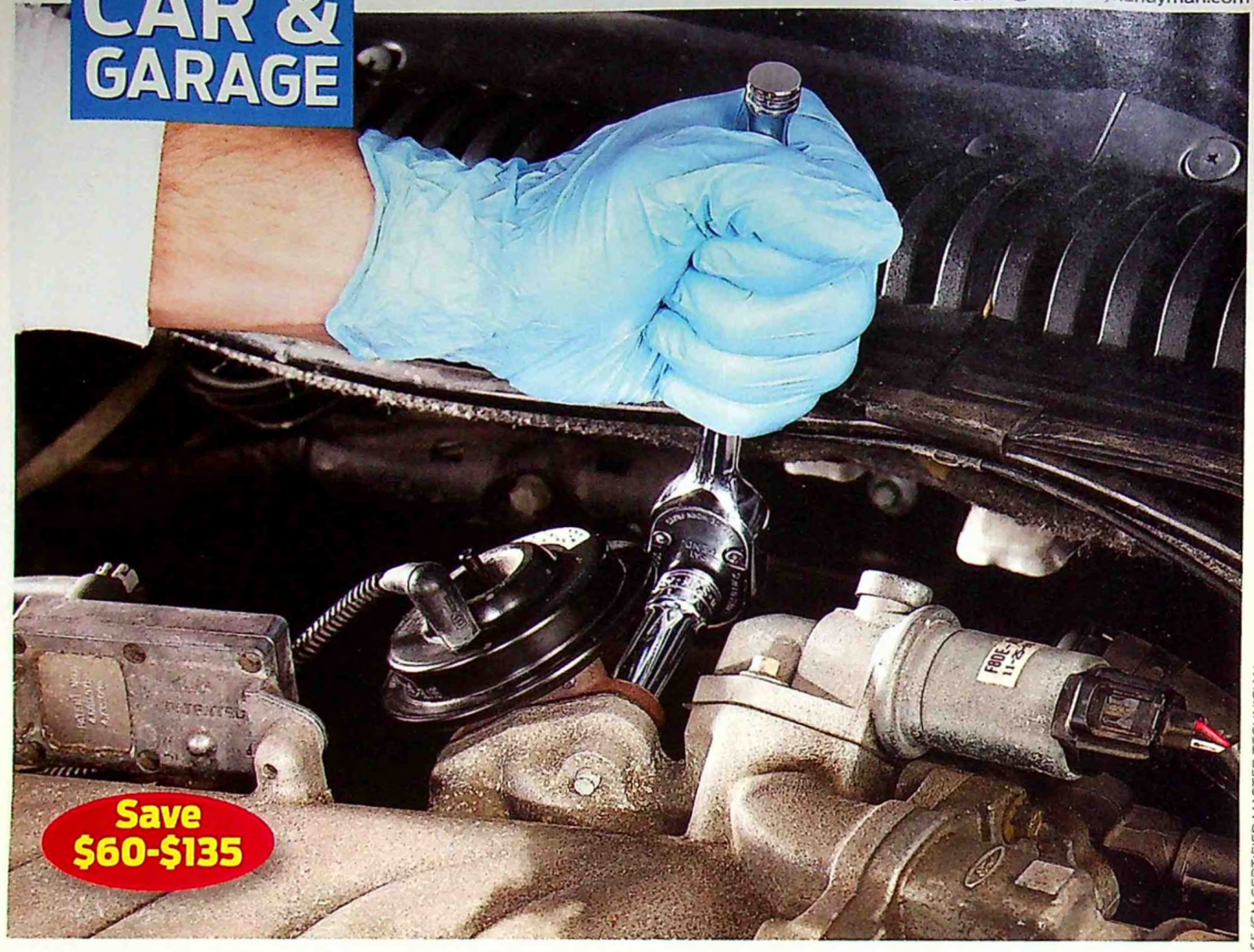
To stop wasting birdseed and keep it off the deck or yard, screw a plastic plant saucer (20¢ at home centers and nurseries) onto the bottom of your bird feeder. You'll catch most of the seeds that those slovenly, wasteful birds kick out. And those seeds cause a real mess, especially when they start sprouting. To avoid cooking up a dish of birdseed mush, cut a slit or two in the plastic for drainage.

Don Wells

We pay $100 for hints and tips

Have a hint you'd like to share? Send it, along with a photo or sketch, to handyhints@readersdigest.com or Handy Hints, The Family Handyman, 2915 Commers Drive, Suite 700, Eagan, MN 55121. Original contributions become our property upon acceptance and payment. We're sorry, but entries can't be returned.

by Rick Muscoplat
editors@thefamilyhandyman.com



Stop rough idle—clean your EGR valve

Idling and stalling problems can really add stress to your daily commute. The most common culprit is carbon buildup on the throttle body, exhaust gas recirculation (EGR) valve and idle air control (IAC) valve. In the Nov. '08 issue, we showed you how to clean a dirty throttle body. This time, we'll show you how to clean an EGR valve. This simple procedure can often bring an EGR valve back from the dead and restore a smooth idle. If the cleaning doesn't work, you'll have to replace the valve ($60 to $135 at an auto parts store or dealer).

Refer to a shop manual to find the location of your EGR valve. If it's fairly accessible, stop at an auto parts store and buy a new EGR gasket, a spray can of throttle body cleaner, and rust penetrant. Spray the EGR retaining bolts with rust penetrant and let them sit while you disconnect the electrical and vacuum lines from the valve (label the vacuum lines so you know which ports they came from). Then remove the

1 Hold the EGR valve so the cleaning spray drips away from the electric solenoid and vacuum motor. Continue spraying until the parts are free of carbon buildup.

Art Direction BOB UNGAR · Photography TOM FENENGA and MIKE KRIVIT · Consultant BOB LACIVITA, ASE/GM CERTIFIED MASTER TECHNICIAN

work+SHOP

FREE PRODUCT INFORMATION

To receive literature from any of the companies listed below, send in the attached Reader Service Card, circle the numbers which correspond to the information you wish to receive, and place a stamp on the card and mail. Also, you may send requests to: The Family Handyman, P.O. Box 413050, Naples, FL 34101-3050.

FOR THE HOME

ARGEE

"Lets Edge It!" Plastic brick edging with built-in solar lights. Glamorize, lighting and edging with one product. Snap & Press. It's that easy! "Patio Pal" brick laying guides holds bricks in place. Lay a brick patio in minutes like a pro. For additional information call Toll Free 800.449.3030 or visit www.argeecorp.com. Circle 1.

DELTA

With a 50-year history of faucet innovation, Delta works wonders with water. For more information call 1.800.345.DELTA (3358) or visit www.deltafaucet.com. Circle 2.

THE DRILL DOCTOR

Save money. Save time. Sharpen those dull and broken drill bits with The Drill Doctor® - The Drill Bit Sharpener. Backed by a three year warranty. For more information call toll-free 800.597.6170 or visit www.drilldoctor.com. Circle 3.

DRYLOK BY UGL

Waterproofing Masonry Made Easy-Full color brochure shows how easy it is to protect basement walls and other masonry surfaces from the damaging effects of water penetration with DRYLOK Masonry Waterproofer, DRYLOK Fast Plug and DRYLOK Etch. United Gilsonite Laboratories. For free information contact us at 1.800.272.3235 or visit our website www.ugl.com. Circle 4.

ELMIRA STOVE WORKS

Vintage-styled appliances with today's features. Choose the warmth of "Antique" or cool Northstar retro. Many options and colors. www.ElmiraStoveWorks.com or call 800.295.8498. Circle 5.

FORBO MARMOLEUM

Marmoleum Click: natural, healthy, easy to clean flooring, available in 18 colors in both panels and squares for an easy, glueless installation. For more information, call 1.866.MARMOLEUM or visit www.themarmoleumstore.com. Circle 6.

GEICO

You could save 15% or more. Get a FREE rate quote at www.geico.com or by calling 1.800.947.AUTO. Circle 7.

HUSQVARNA

Husqvarna manufactures outdoor power equipment for professionals, landowners and homeowners. Visit husqvarna.com for dealer locations or call 1.800.HUSKY62 Circle 8.

INSL-X

For more information on Garage Guard Epoxy brochure 9WI001210, please contact us at 1.800.225.5554 or visit our website www.insl-x.com. Circle 9.

THE IRON SHOP

The very best selection, quality and prices in spiral stairs! Designed to fit any height and various diameters. Available in Metal, Oak, Victorian Cast Aluminum Kits, and All Welded Units. For a FREE color catalog call 1.800.523.7427 ext. FH or for more information please visit our website www.theironshop.com/FH. Circle 10.

LEATHERMAN

Leatherman, the original and still the world's leading multi-tool. Backed by an outstanding 25-year warranty. Experience the difference a Leatherman can make. For a FREE brochure call 1.800.847.8665 or visit www.leatherman.com. Circle 11.

LOWE'S

Visit LowesMoving.com/TFH and find everything you need before, during and after the move, including special offers, helpful tips and projects. Sign up and save 10% on Lowe's purchases up to $5000. Circle 12.

MECHANIX WEAR

Mechanix Wear is a manufacturer/distributor of functional, performance-based products designed specifically for mechanics, including gloves, shoes, aprons and kevlar heat sleeves. For more information, call 1.800.222.4296 or visit our website at www.mechanix.com. Circle 13.

MINWAX

Minwax Wood Beautiful, this inspirational magazine contains 36 pages filled with exciting home improvement projects, decorating ideas and expert wood finishing tips and techniques. FREE. Also, visit our website at www.minwax.com. Circle 14.

MYTHIC PAINT

Mythic™ paint is a premium, non-toxic, ultra low odor paint with outstanding durability and coverage. Now that's a breath of fresh air! Call 1.877.769.8442 or visit our website at www.mythicpaint.com. Circle 15.

PROPANE

Propane is a reliable, efficient, clean burning, non-toxic fuel source for your home. Toll-Free Number: (888).963.PERC (7372). For more information visit our website usepropane.com. Circle 16.

QUIKRETE

QUIKRETE cement and concrete products are perfect for any around- the-home concrete project. Free DIY Projects Guide available. Visit our website at www.quikrete.com. Circle 17.

SUNPORCH.COM

Now create your own beautiful outdoor living room! The SunPorch mounts on your deck or patio to create a breezy screenroom in summer & a cozy sunroom for cool weather. Complete details at www.sunporch.com.

SUNSETTER RETRACTABLE AWNINGS

Rediscover the joy of your deck or patio with America's most popular and affordable retractable awning! Visit our website www.sunsetter.com.

THE ORIGINAL SUNHEAT

SLASH YOUR HEAT BILL UP TO 50% with SUNHEAT infrared zone heating system. T&R Distributing brings you the safest, most comfortable and economical heat source available. For more information call: 1.800.491.4690 (x292) or visit our website at: www.sunheat.com Circle 18.

TREX

Trex® decking offers a natural look and comfortable feel that no composite product can match. For more information call toll-free 1.800-BUY-TREX or visit www.trex.com Circle 19.

ZINSSER

To paint like a pro, prime like a pro with primers from Zinsser. Zinsser primers hide dark colors, block stains and seal the surface, so your paint job looks better and lasts longer. Get professional results the next time you paint. Prime with Zinsser first. Visit www.zinsser.com to learn more. Circle 20.

POWER TOOLS

RYOBI

Ryobi offers affordably priced professionally featured power tools, check out the 18-volt One+System at The Home Depot. For more information call 1.800.525.2579 or visit www.ryobitools.com. Circle 21

WOODWORKING

LOWE'S WOODWORKERS

Free Membership in Lowe's Woodworkers! Sign up and you'll receive The Woodpost-seasonal newsletters via U.S. Mail, project plans, advice from experts, and much more. Go to www.lowes.com or www.familyhandyman.com to sign up! Circle 22.

TYGAR'S LANDSCAPE CURBING

TYGAR's systems are the ultimate home improvement opportunity for DIY entrepreneurs. Edge lawns and flower beds with attractive curbing and make $000's doing it. For FREE info/DVD: www.eztygar.com or 1-888-EZ-TYGAR. Circle 23.

NEW! Request FREE product information on-line!
Visit www.TheFamilyHandyman.com, and click on "Free Product Information."

retaining bolts and lift the EGR valve out of the engine compartment.

Place the valve on a bed of paper towels and tilt it so the cleaning solvent won't drain into the electric solenoid or vacuum motor, which operates the metering rod—the solvent can damage those components. Spray the port and metering rod until they're clean (wear eye protection and gloves). Once the parts are clean, check for smooth metering rod operation by forcing the rod in and out of the port with a screwdriver. It should slide smoothly and close completely in the port. If not, apply solvent to a cotton swab and clean the shaft and port.

Check the passage under the EGR valve to see if it's clogged with carbon. If it is, gently chip out the carbon with a small screwdriver and vacuum it out with a shop vacuum. Then reinstall the EGR valve using the new gasket.

2 Check for smooth operation of the metering rod by pushing it in and out with a screwdriver. If it slides roughly, clean it with a cotton ball or swab soaked in cleaner.

Prevent license plate theft

When gas prices are high (and don't fool yourself—they will be again!), nasty people have been known to steal someone else's license plates, fill their own cars with gas, drive off without paying and let the gas station cameras capture the stolen license plate number. Install a set of security screws to stop the crooks before they get their sticky fingers on your plates. The screws are cheap ($4 a set), easy to install and available in a style to fit your vehicle. The kits come with a security wrench; keep it in a safe place so you can change plates when they expire.

licenseplateshop.com

SECURITY SCREWS

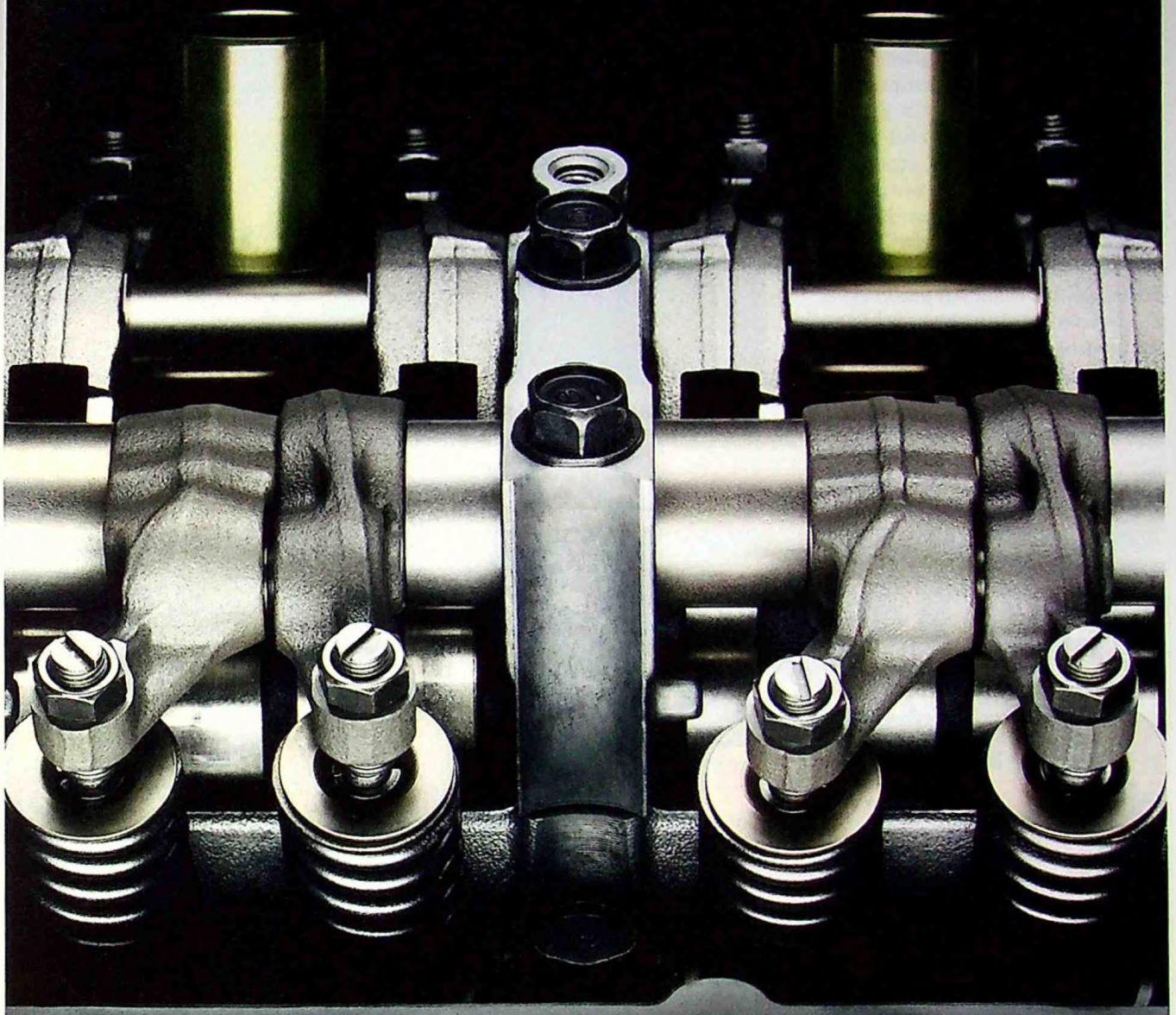
Comment

Starting fluid controversy

In our Feb. '09 issue, we suggested spraying a one-second shot of starting fluid into the carburetor of your two-cycle engine if the engine won't fire up on its own. But we warned you to take your small engine to a shop if it didn't start after this procedure.

Some readers disagreed with that advice, protesting that starting fluid "washes the lubrication off the cylinder walls and causes permanent engine damage in less than two minutes." They recommended carburetor cleaner, WD-40 or a gas/oil mist instead. They're right in saying that carburetor cleaner and WD-40 provide more lubrication. But they miss two points: First, none of those other sprays are as volatile as starting fluid, so they're not as effective in producing "fire." Second, even though the other sprays provide some lubrication, it's not enough to prevent damage if you inject them repeatedly. Whichever spray you choose, you still only get one shot at it. You've been warned.

What if the last 75,000 miles never happened to your engine?



©2009 Exxon Mobil Corporation. Mobil and Mobil 1 are registered trademarks of Exxon Mobil Corporation or one of its subsidiaries. NASCAR is a registered trademark of The National Association for Stock Car Auto Racing Inc. Trademarks granted by license from Penske Racing South, Inc.

Revitalize your car's performance with Mobil 1 High Mileage. Help give your engine a fresh start with Mobil 1 High Mileage, the oil that outperforms all conventional oils. It not only reduces sludge and other deposits from engines with more than 75,000 miles, it also helps recondition seals and prevent leaks. If you want to help maximize your engine's performance and extend its life, get Mobil 1 High Mileage today. Learn more at mobil1.com.

Official Motor Oil of NASCAR

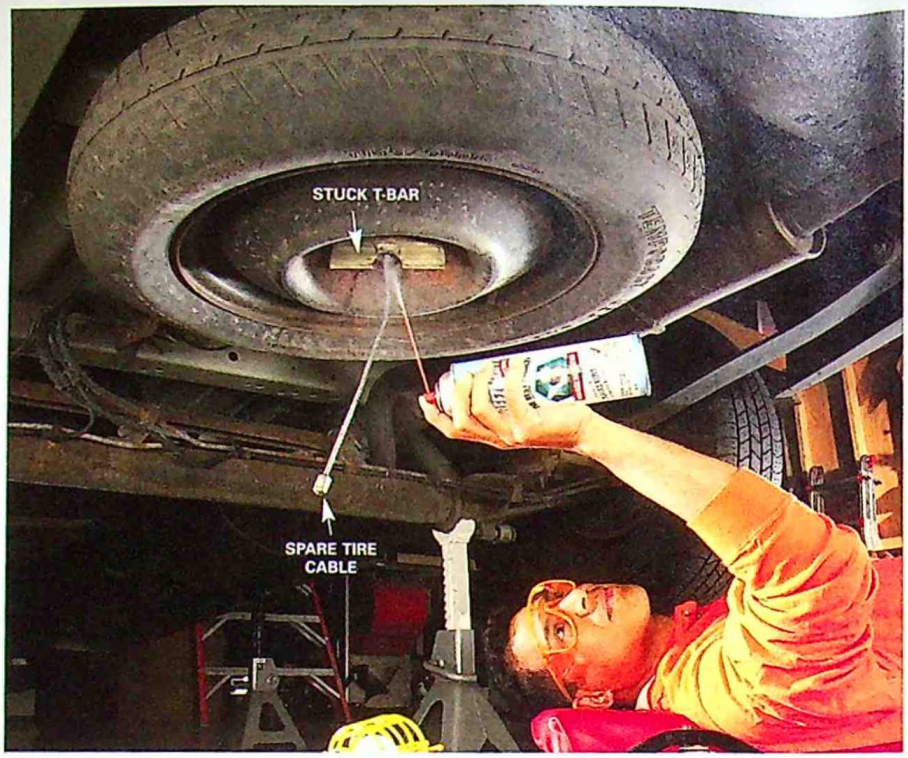
Mobil 1

Service your "tuck-under" spare tire lift now!

Most trucks, vans and SUVs stow the spare tire under the vehicle. It's a great space-saving idea, but one that doesn't always work well in the real world. The corrosive brew of road salt, mud and sand usually eats away at the tire lift's metal components, rendering the lift unusable when you need it most. Picture yourself with a flat tire at the side of the road—in a storm, of course.

You can prevent that nightmare by checking your spare tire lift right now, in the comfort of your garage. If you don't know how to lower the spare tire, consult your owner's manual. Check to make sure you still have the factory cranking tools. Now is the time to get any replacement parts.

Start by raising your vehicle and supporting it with jack stands. Try lowering the spare tire. If it's stuck, shoot spray rust penetrant through the wheel openings to saturate the lift.



1 Soak a stuck spare tire lift with rust penetrant. Tap the T-bar to set up rust-busting vibrations.

2 Coat the release latch with rust converter. When it's dry, coat the components with marine grease.

Then lightly tap on the T-bar with a hammer to set up vibrations and break up the rust. After several rounds of spraying and tapping, the lift should free up. Lower the tire and move it out of the way. If it still doesn't budge, insert a long screwdriver or pry bar into the wheel hub opening and force the release latch open. That may ruin the latch, but replacing it now is a heck of a lot better (and cheaper) than dealing with it on an emergency basis.

Coat all rusted parts with rust converter and allow them to dry. Then apply waterproof marine grease to all the working parts of the release latch. Yes, the grease will pick up road dirt, but it'll also repel water and keep the latch from binding in the future.

Finish the job by checking the air pressure in the spare tire and restowing it. Perform this quick maintenance exercise once a year and your spare tire will never let you down. For flat tire tips and hints, go to thefamilyhandyman.com and search for "flat tire."

ATTENTION DECK & PATIO OWNERS!

SunPorch SUNROOM/SCREENROOM

WARM IN WINTER & COOL IN SUMMER WITH... ZERO ENERGY COST!

FREE! 24 page Catalog & Prices!

Request Your FREE Catalog & Prices at:
www.sun-porch.com
Enter code 5627 and SAVE!
or Call: 203-557-5627
SunPorch, Dept. 5627, Westport, CT 06880
Family Handyman May 09

Mounts on your deck or patio with No site prep! No permits! No taxes!*

- Turn your deck or patio into a beautiful outdoor room!
- Converts from sunroom to screenroom...in just seconds!
- Easy-Slide windows with floor to ceiling screens adjust to your comfort instantly!
- Complete easy-to-assemble kit with roof, walls, windows, screens & door!

Affordable Factory-Direct Prices Make SunPorch America's Best Sunroom value!

*Varies by locale.

PLUS...The SunPorch Gives You All-Year Money & Energy Savings!

The SunPorch can help to heat your home in winter...and cool your home during the summer all with ZERO Energy cost!

1 Save on home heating costs all winter!
2 Beat the heat & high cost of AC all summer
3 Save with a SunPorch Vacation at home!
4 You get two great outdoor rooms in one!
5 Unbeatable factory direct prices & savings

DOLLAR SAVVY HOMEOWNER

by Gary Wentz and Travis Larson
editors@thefamilyhandyman.com

Don't change fluorescent bulbs until you have to

Some people think fluorescent tubes have to be changed when the ends of the tubes turn black. Not true. Continued use doesn't harm the starting ballast or significantly affect light output. Leave them alone until the bulb starts flickering or takes a long time to fire up. Then stick in a new bulb, because at that point the old one *will* damage the ballast.

Stop giving away money!

The average American family chugs its way through 900 aluminum cans a year, or 2.5 cans every day. In the past year, hauling them to the recycler would have yielded $12 to $33 depending on the fluctuating price of aluminum. If you're the *average* family, maybe that's not enough money to worry about. But if your family members are super slurpers, maybe you should stop hauling cans out to the curb and giving them away. Crush them as they're used, and when you've amassed a mountain, haul them to a nearby recycler that pays for scrap and cash in. Make the most money by taking them in when the price is high; call the recycler once in a while to check on the price. Look under "Recycling" or "Scrap Metal" in the phone book to find the nearest yard.

And if you're having your aluminum siding replaced, tell the installer that *you'll* haul it away—right to the recycler. This chunk of cash would otherwise go into the installer's pocket.

Prevent THOUSANDS in damage

Vacationing? Switch off the well pump or water valve!

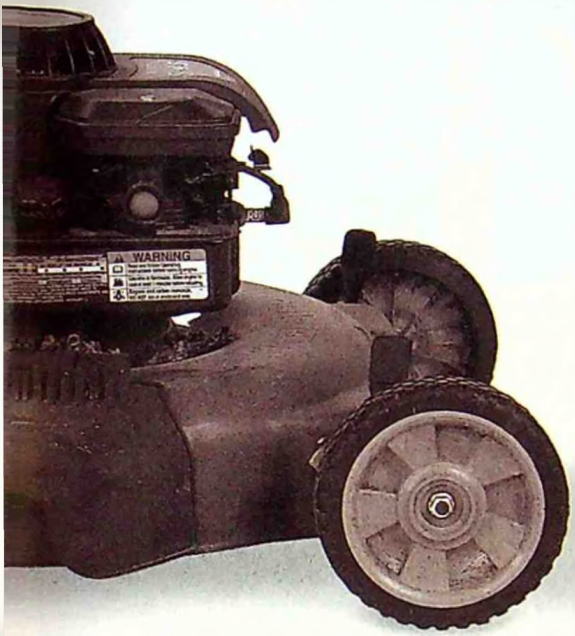
If you're on vacation and a pipe springs a leak, the water won't stop running on its own. Thousands of gallons can pump into your home and destroy everything in its path. Next to a fire or flood, this is the ultimate home nightmare. But it's easy to prevent. If you have a well, there's usually a pump switch near the pressure tank. And if you have city water, there'll be a shutoff valve where the water comes into the house. If someone is tending dogs or cats or watering while you're away, show them how to turn the water on and off again and you'll come home to a dry house.

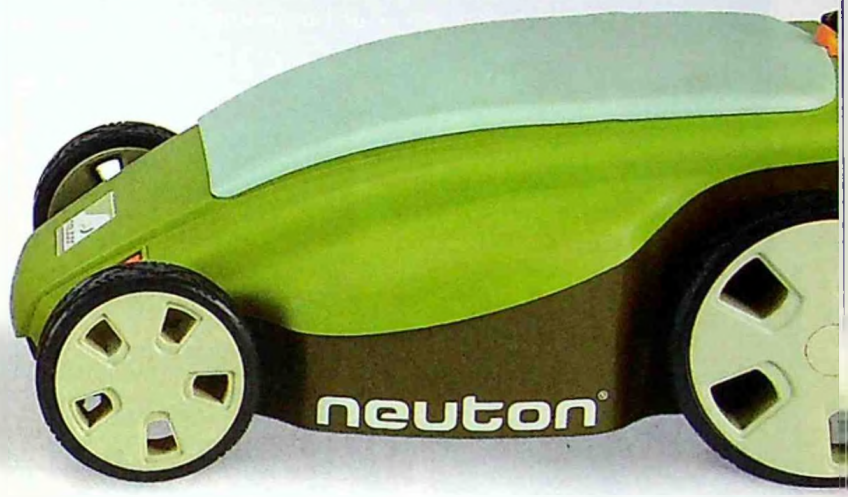
Art Direction BOB UNGAR • Photography TOM FENENGA, MIKE KRIVIT and BILL ZUEHLKE

OLD vs NEUTON®

Gas Power	Battery Power
Pull start	Push-button start
Heavy to push	Light & easy to use
Extremely loud	Whisper quiet
Costly gas and oil	Only 10¢ to charge
Tune-ups required	No maintenance
Polluting	Emissions-free

FREE SHIPPING now in effect!





It's America's #1-selling battery-powered mower!

Join the revolution already in progress.

FREE Neuton DVD & Catalog

1-888-213-1027

www.neutonmowers.com

neuton®

65238X © 2009

Mix your own window cleaner

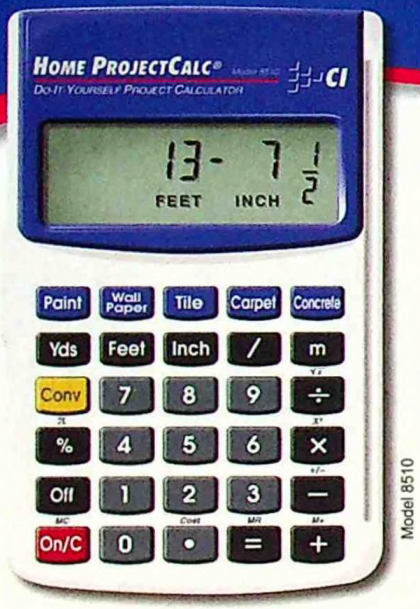
You know, most professional window washers don't buy window cleaner. They mix a teaspoon of dishwashing liquid with a few gallons of water. That's it. You can just pour it in a spray bottle for in-house work. For outside windows, get yourself a sponge/squeegee combination window cleaner and dip it right in the bucket. Depending on how fanatical you are about washing your windows, you could save pennies a year! OK, there aren't huge savings here. If you've got a better idea for saving money at home, send it in. You could net $100!

To see how pros get windows squeaky-clean fast, go to thefamilyhandyman.com and search for "wash windows."

Do it right the first time with

HOME PROJECTCALC®

With the Home ProjectCalc, you'll save time, money and eliminate errors on your home improvement projects



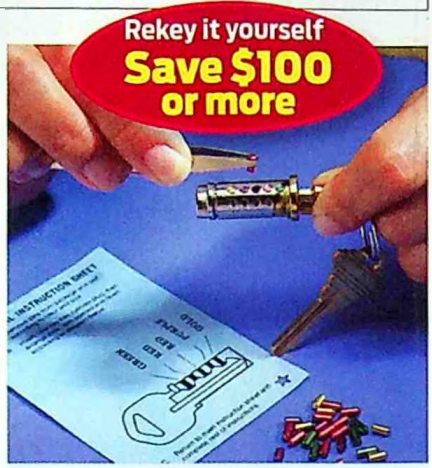
The Home ProjectCalc gives you measurements in Feet-Inch-Fractions and works as a standard math calculator.

- Quickly calculate Linear, Area, and Volume dimensions
- Works in, and converts between, Yards, Feet, Inches, Fractions, Decimals and Meters
- Dedicated functions give fast material quantities and costs for Paint, Wallpaper, Tile, Carpet, Concrete and more!

CALCULATED INDUSTRIES®
FAST. ACCURATE. RELIABLE.

FHM-509

For a dealer near you call 1-800-854-8075 or visit www.calculated.com
4840 Hytech Drive, Carson City, NV 89706 • 1-775-885-4900 Fax: 1-775-885-4949



Be your own locksmith

If you need to change your deadbolts or doorknob locks for security reasons, you have three options. You can buy all new locks (KA-CHING!) or hire a locksmith to rekey the locks (ka-ching). Locksmiths charge anywhere from $35 to $100 just to show up and then $25 and up for every lock they rekey. But there is a third, really cheap option: rekeying the locks yourself with the help of an $11 rekeying kit. Find the kits at home centers, hardware stores or online at changealock.com (866-546-2957). Just be sure to get the kit for your brand of lock.

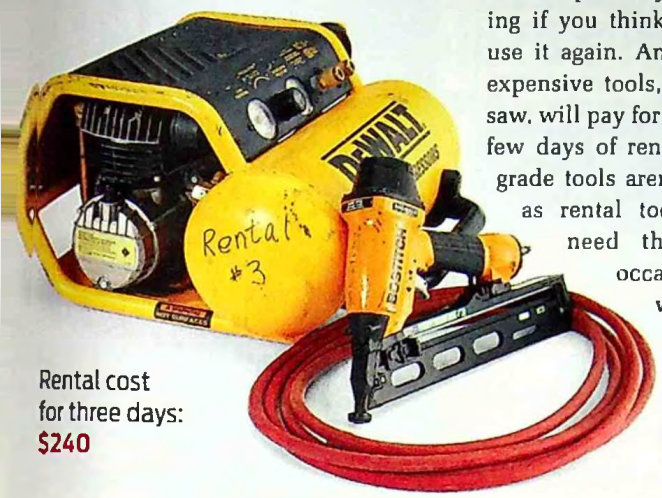
For complete instructions on how to use the kit, go to thefamilyhandyman.com and search for "rekey lock." It's mostly just a matter of taking apart the lock and replacing the internal pins with the ones from the kit. One kit will upgrade six locks. The first lock will take you about 20 minutes, but you'll pick up speed after that.

Renting isn't always smart

Sometimes it makes sense to rent—but not always. That's especially true if you're not quite sure how long a job will take. When's the last time you finished a job early? For example, say you think you'll need a trim gun, hose and compressor for two days at $80 a day. If it winds up taking you three days to trim out the basement, you could have bought the whole kit and caboodle for less than the rental cost.

Any tool that costs less than $100 is probably worth buying if you think you'll ever use it again. And even more expensive tools, such as a $250 tile saw, will pay for themselves in only a few days of rental. True, consumer-grade tools aren't always as rugged as rental tools, but you won't need that ruggedness for occasional use. Plus, with all those tools to lend, you'll be more popular with all your friends and relatives.

Price of a brad nail/ compressor kit: **$200**



Rental cost for three days: **$240**

Do you have a dollar-savvy tip you'd like to share? We'll pay you $100!
E-mail your tip to savvy@thefamilyhandyman.com, or mail it to Dollar Savvy Homeowner, 2915 Commers Drive, Suite 700, Eagan, MN 55121. Please include your name, address and phone number. Original contributions become our property upon acceptance and payment.

Ease of use, ***peace of mind.***

Be able to bathe safely, without worry with a Premier Walk-In Bath.

Independence and security are only a phone call away. If you struggle taking your bath, talk to us at Premier about our extensive range of walk-in baths.

- Enjoy a relaxing bath again, without the fear of slipping or falling.
- The walk-in door feature allows easy access and exiting.
- Hydrotherapy jets soothe away your aches and pains.

☑ Yes! Please send me a FREE COLOR BROCHURE about Premier Walk-In Baths.

Name
Telephone
Address
City
State Zip

Send to: Premier Bathrooms Inc. 2330 South Nova Rd. South Daytona, Florida 32119

CODE 21C59

Financing by GE Money
Offer subject to approval from GE Money Bank

"Transform your bathroom and transform your life."
– Karen Grassle

Premier

CALL NOW • TOLL FREE
1-800-578-2899
SOURCE CODE 21059

Turn Any Shop Vacuum into a Super Cyclonic Vacuum!
No More Clogged Filters!

New!

D.I.Y. $59.00 or $99.00 Complete Conversion Kit (Shown Here)

Made in the USA

Our new plastic Dust Deputy is an economical way to eliminate shop vacuum filter clogging!

Oneida Air Systems

Call for FREE Catalog!
1.800.732.4065

Order Online!
www.oneida-air.com

The Marketplace

DO IT YOURSELF

Save space and money... build your own murphy bed

do-it-yourself mechanism includes step-by-step construction plans and DVD

Create-A-Bed®
TOLL FREE: 1-877-966-3852
www.wallbed.com

HOME IMPROVEMENT

WATER PROBLEMS ??

NO MORE IRON!
NO MORE SULFUR!
NO MORE HARDNESS!
NO MORE BACTERIA!

PROBLEMS SOLVED WITH
NO SALT & NO CHEMICALS

FREE BROCHURE~1-800-392-8882
MONEY BACK GUARANTEE!
www.waterproblems.net

AMERICAN MADE

HEAVY DISCOUNTS up to 60%!

Color Available!
Made in the USA!

Perfect for a small business location or space for your hobby at the lowest prices anywhere!

800-891-6733
www.steelspan.com ext. 532

ENERGY CONSERVATION

Alum-a-Foil Attic Radiant Barrier
Why Suffer From High Energy Costs!
Call 1-800-421-5947 For FREE Brochure
or Visit Us @ www.afs-foil.com

LAWN IRRIGATION

Do It Yourself
Self Draining Irrigation Kits
From Auto Rain Lawn Gear

www.upirrigation.com

Now Is The Time To Advertise!

Contact
John Chaykin at
800-394-5157 ext. 38 or
jchaykin@mcneill-group.com

Build Memories!

with DETAILED Play Systems Backyard Playground Equipment

Do it Yourself and Save!
The Build @ Home™
Playground Equipment Store
ON THE WEB
www.detailedplay.com
1-800-398-7565

WORKSHOP & GARAGE CLEARANCE

16' W x 16' L - $1,923
Only 4 available
25' W x 28' L - $3,762
Only 4 available
52' W x 50' L - $9,999
Only 2 available

CALL TODAY
SALE BUILDING GOING FAST!

STEEL MASTER BUILDING SYSTEMS

800-341-7007
www.SteelMasterUSA.com
Ask for Elizabeth
*Photo for Illustration Only

WeatherTech®
FloorLiner™
Complete Coverage... ...for Whatever You Drive!

Keep Your Vehicle Clean!
Custom Products, Perfect Fit!

See and Order Everything at
WeatherTech.com
800-441-6287

MacNeil AUTOMOTIVE PRODUCTS LIMITED
Specialists in Original Equipment and Aftermarket Automotive Accessories
©2009 MacNeil Automotive Products Limited

SAVE 74%

U.S. Mint ends Statehood quarter series

Own the complete set – ALL 50 Quarters designs ...*before it's too late!*

Now that the wildly popular Statehood quarters have ended, collectors are hurrying to put sets together featuring all 50 designs from 1999-2008, in mint Uncirculated condition. Act now to get a prized complete Uncirculated set of all 50 Statehood quarters issued since 1999 – *before it's too late* – for the special low price of ONLY $19.95! You'll **SAVE 74%** off the regular price, and get an Uncirculated 5-coin set of 2004-2006 Westward Journey nickels absolutely **FREE!**

FREE Gift!
when you order by deadline
Uncirculated 5-Coin Set of Westward Journey Nickels minted from 2004-2006 – five different nickel designs!

You'll also receive our fully illustrated catalog, plus other fascinating selections from our Free Examination Coins-on-Approval Service, from which you may purchase any or none of the coins – return balance in 15 days – with option to cancel at any time.

45-Day Money Back Guarantee of Satisfaction

Special Offer for New Customers Only

☑ **YES!** Please send me the Complete Uncirculated Set of 1999-2008 Statehood Quarters for ONLY $19.95 – regularly $~~29.00~~ (limit 3 sets). Also send my **FREE** Westward Journey Nickel Set (one set per customer, please).

ORDERS MUST BE RECEIVED WITHIN 30 DAYS

How Many Sets (limit 3): $_____

Total Cost @ $19.95 per set: $_____

Method of payment:
- ☐ Check payable to Littleton Coin Co.
- ☐ VISA
- ☐ MasterCard
- ☐ American Express
- ☐ Discover Network

Add a Custom Statehood Display Folder and **SAVE over 10%** at $3.50 each (limit 5): $_____

SPECIAL SAVINGS!

Shipping & Handling: $ 4.95

Total Amount: $_____

Card No. _____ Exp. Date ___/___

Name _____

Address _____

City _____ State _____ Zip _____

E-Mail _____

Please send coupon to: Littleton Coin Company, Dept. SH408, 1309 Mt. Eustis Road, Littleton NH 03561-3737

America's Favorite Coin Source • TRUSTED SINCE 1961

Don't delay – these historic coins WILL NEVER BE MINTED AGAIN!

To order, please mail coupon or visit us at LittletonCoin.com/specials

Product Showcase

Build A Better Barn... and SAVE!

12'x16' Stanford

Visit our on-line catalog for the largest selection of storage sheds, garage and cabin kits. *sorry, no print literature*

★ WOOD ● VINYL ☆ METAL

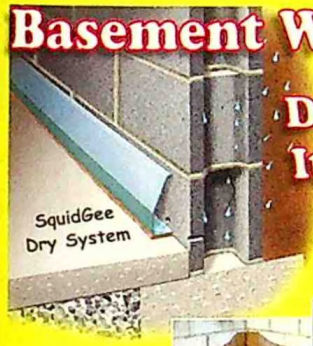
16'x20' Roanoke

coast to coast delivery $125.00

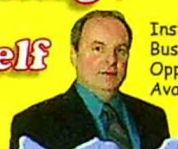
www.ShedkitStore.com

Order Line 800-245-1577

Basement Waterproofing !



Do-It-Yourself Its Easy!



Installer Business Opportunity Available.

Average cost... $6.00 per ft. Delivered! Based on a 100ft.

waterproof.com

For Fast Delivery. Order online...
www.waterproof.com
1253 Hallmark Ct.
Oakdale, MN 55128
Ph 651 644-2000

Hydrostatic pressure forces water up through the joint where your floor and walls meet. *SquidGee system* collects the seeping water and quietly drains it to your floor drain or sump pump. The only skill needed for installation is the ability to follow directions. Just seal the pre-molded corners and easy to handle main sections to the floor using the *SquidGee SealOnce™* Adhesive. With the *SquidGee Dry™* system in place, walls can easily be paneled or finished.

UnderGround DownSpout Kit

Drain roof water 8ft away from your foundation to prevent water problems.

Proper water management around the foundation of your home can be very effective at keeping the water from reaching your basement.

Order your kit today!
Only $19.85

Spoil Her

this Mother's Day!

Send your Mom or Wife a Pajama Gram

FREE with every order:
- Organza hatbox
- Lavender-scented sachet
- Do not disturb sign
- Personalized gift card

She'll LOVE It!

Shown: Super Mom Pajamas

Mother's Day is May 10th
Overnight Delivery Guaranteed!

PajamaGram.com • 1-800-GIVE-PJS

Product Showcase

*Deckwrecker removes deck boards in a fraction of time!
*Uses leverage, not strength.
*Straddles single or double joists.
*Strong and durable fiberglass handle with padded grip.
*15 Year warranty.

*The Nailpuller pulls out nails with or without the heads!
* Simply grasp and pull and the nail is easily removed!
*Visit our website for more details!
www.deckwrecker.com/nailpuller

Mention this ad for free shipping when you buy the Deckwrecker and Nailpuller together!

Forrester Manufacturing Co., Inc.
5073 Bristol Industrial Way
Buford, GA 30518
www.deckwrecker.com
Toll Free 866-256-4499

5-Minute Fence Stain

FIVE MINUTE FENCE STAIN

Stain 100 feet of fence in just 5 minutes! Sprayer attaches directly to garden hose. No masking, simply hose off over-spray. One quart covers 600 square feet. Select from three natural wood tones; Natural Cedar, Dark Cedar or Redwood.

www.FiveMinuteFence.com

Plumbing & Heating Supplies

Online Ordering

www.pexsupply.com

LOWEST GUARANTEED PRICES

Large Selection Fast Shipping

Real People. Real Service.

PexSupply.com 888.757.4774

Classified Corner

APPAREL

SUSPENDERS WITH PATENTED NO-SLIP CLIP. Free Catalog 800-700-4515. **www.suspenders.com**

BUSINESS OPPORTUNITIES

Make $500 Weekly. E-Z Assembly work. Free Information, Send SASE: JDK-H, Box 635, Hopkins, MN 55343-0635

$1000's WEEKLY mailing beautiful rose catalogs! Free supplies/postage! SASE: RBM-H Box 759, Lake Zurich, Illinois 60047-0759

BUNKBEDS. Clear $300/day making Bunk Beds. Start at home in your spare time. 800-382-3180 Ext 912

CARPET

"CARPETS" LOWEST PRICES Vinyl, Hardwood, Laminates. Name brands, Free samples. Ship anywhere. Access Carpet, Dalton, GA 1-800-848-7747 ext. 75 www.accesscarpets.com

HEATING & AIR CONDITIONING

NEW Goodman Heating & A/C Equipment at wholesale prices shipped directly to your door! Visit **www.BetterwayAC.com** or call 1-866-963-4704

HELP WANTED

$400 WEEKLY ASSEMBLING Electronic Circuit Boards / Products. SASE: Home Assembly - FH Box 450 New Britain, CT 06050-0450

HOMEWORKERS NEEDED! Top pay for assembling products. Rush S.A.S.E. to: HIS-FH, Box 5657, Clearwater, FL 33758

HOME IMPROVEMENT

LEAKING SHOWER DRAIN!!!
"Replace the drain, not the whole shower" WingTite Drain installs from the top, no below access required.
www.wingtite.com 800-200-2678

LANDSCAPING

Landscaping101.net Learn how to do landscaping the way the professionals do it, from a 30-year-plus designer/contractor.

MACHINERY, TOOLS, SUPPLIES

Senco • DuraSpin • TyRex
Largest in-stock selection. Best prices.
www.juldan.com

www.nailzone.com Senco, Hitachi, Paslode nailers, staplers, fasteners, Fast Shipping. 800-227-2044

Check it out!
A new tool for the ceramic trade.
Patent #7,484,263
OOPSTOOL.com

MUSICAL INSTRUMENTS

ACCORDIONS, CONCERTINAS, BUTTON BOXES. New, Used, Buy, Trade, Repair. Catalogues $5.00. Castiglione, Box 40X, Warren, MI 48090. **1-586-755-6050** www.castiglioneaccordions.com

WATER FILTRATION

All **Wellness Filter®** water purification and enhancement products utilize our proprietary media and patented enhancement system to produce water that no other system can match. With systems ranging from a travel unit that easily slips in your travel bag to one that will enhance all of the water for your entire home, we have a **Wellness Filter®** to provide you the **Best Source of Water on Earth...™** Visit www.wellnessfilter.com

To advertise contact
John Chaykin at
800-394-5157 ext. 38 or
jchaykin@mcneill-group.com

NEW & IMPROVED!

thefamilyhandyman.com

We've rebuilt our site from the ground up! Check out these new features:

Share photos
Got a project you're proud of? Did you improve on an idea you saw in TFH? Show off your work at our online gallery.

Browse the hottest topics
Hunting for ideas, improvements or expert advice? We've organized hundreds of articles into convenient categories for easy browsing.

Talk to us
Tell us what you think of any project, fix or tip. Got a better way? Share it with your fellow readers or e-mail the editors!

View slide shows
See step-by-step photos of popular projects along with complete instructions.

Vote for your favorite articles
Rate any article you read. Plus, post your comments and questions.

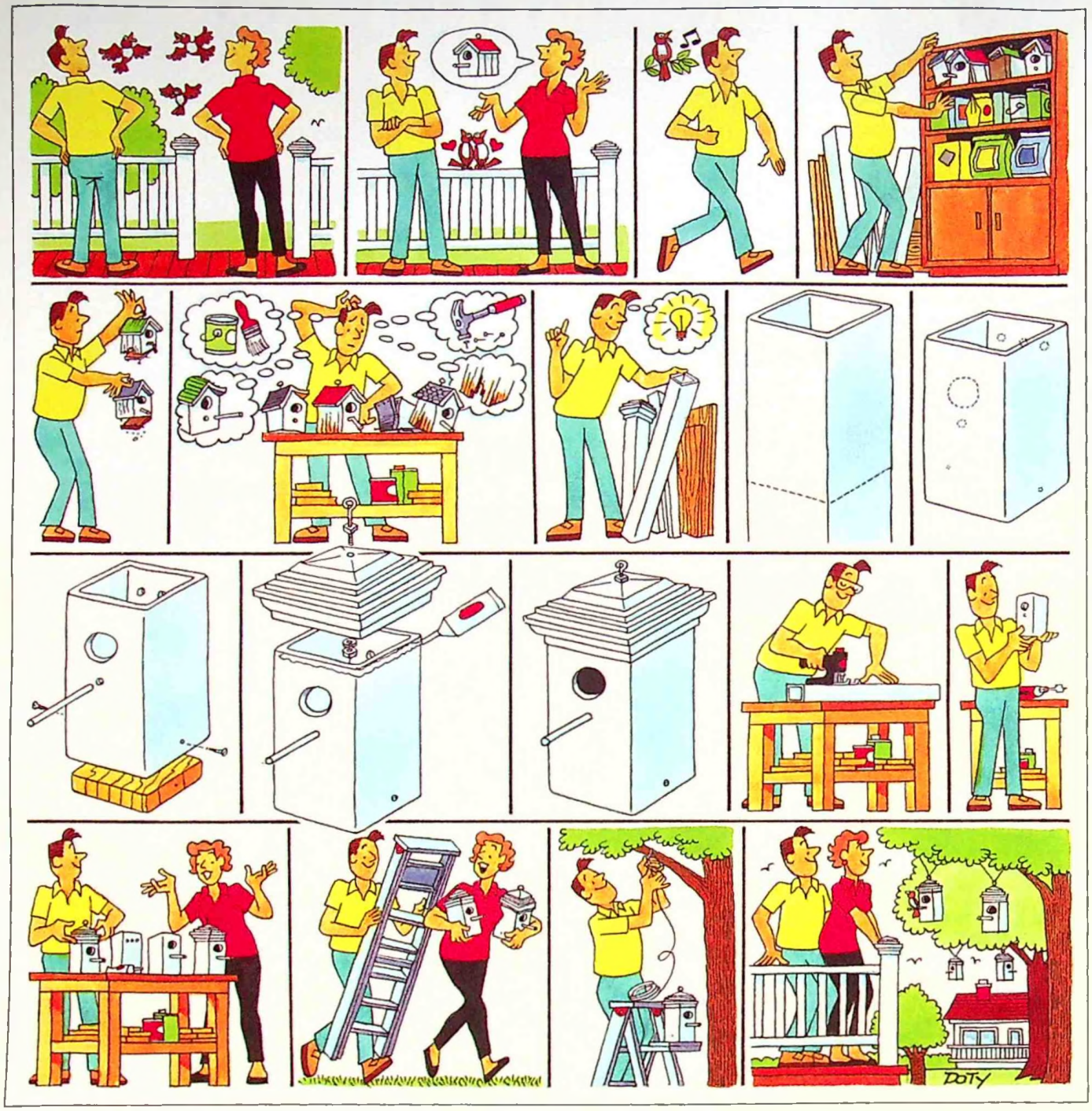
THE FAMILY Handyman

#1 in home improvement — in print AND on the web

WORDLESS WORKSHOP™

by Roy Doty
wordless@thefamilyhandyman.com

PVC fence post birdhouse



Our thanks go to Mike Sucheski, Clarks Summit, PA, for this idea.

We'll pay $100 for any ideas published, so send in those sketches and notes!

Submit your idea to wordless@thefamilyhandyman.com or Wordless, The Family Handyman, 2915 Commers Drive, Suite 700, Eagan, MN 55121. Only ideas we purchase will be acknowledged. Original contributions become our property upon acceptance and payment.

Now you'll hear every word – Loud 'N Clear!

NEW

Ever wish you could turn up the volume on life – without wearing an embarrassing device? Now you can with **Loud 'N Clear**, the personal sound amplifier that's disguised as a cell phone headset!

Loud 'N Clear turns ordinary hearing into extra-ordinary hearing. It's so powerful you can hear a conversation from across the street! Best of all, it has dozens of everyday uses. Now you can:

- Listen to TV at a volume that's comfortable for you but doesn't disturb others.
- Hear better at Bingo, card games and other events where you can't afford to miss a word.
- Enjoy lectures, movies, shows and church like never before.
- Keep "an ear on" the children when they're playing out of range.
- Make the wildlife come alive during nature walks or hunting trips.

Loud 'N Clear is compact and portable, so it's always handy when you need a little extra volume.

Through this special offer, you can get **Loud 'N Clear** for only **$19.99**! It comes complete with our 60-day Total Satisfaction Guarantee. And that's not all ...

For a limited time, you'll even get a **second Loud 'N Clear FREE** with your purchase (just pay shipping and handling). That's two for the price of one! Supplies are limited.

© 2009 Ideavillage.

Buy One, Get One FREE!

AS SEEN ON TV

Earpiece Adjusts To Be Worn On Either Ear

Discreet & Powerful!

Great For:
- TV
- Bingo
- Church
- & More!

HERE'S HOW TO ORDER

1. Call a friendly operator toll-free at **1-800-864-1837**.
2. OR visit our website at **www.getloudandclear.com/fh** (be sure to type the full address so you get the discounted price).
3. OR send your name, address and a check for $34.97 (includes S&H) to: Loud N Clear Offer FH, PO Box 4525, Pacoima, CA 91333
   (NJ & CA residents MUST add sales tax).

GREAT GOOFS®

from our readers
greatgoofs@thefamilyhandyman.com

Hot tub dash

My wife and I installed a new hot tub in our yard and were anxious to use it. On a very dark night, we decided to go for an inaugural skinny dip. We got halfway to the tub when the motion sensor fixture flooded the area with bright, show-you-in-all-your-glory light. We ran back toward the house and ended up falling in a heap on the ground. We don't forget that light anymore—or our towels!

— John McCarthy

Just add concentrate

I serve on our homeowners' association board and oversee the landscaping. Last spring, I decided to spot-spray the dandelions with weed killer. I poured 10 ozs. of concentrate into a measuring cup, emptying out the weed killer bottle. I washed out the bottle and put it in the recycling bin, then grabbed my 4-gallon backpack sprayer and spent the rest of the morning treating dandelions in a four-block stretch.

When I got back to my garage with my empty sprayer, I saw the measuring cup with 10 ozs. of weed killer concentrate still sitting on the workbench. So I got to spend my afternoon spraying the same weeds—this time with weed killer, not just water.

— Joe Albaugh

Right deck, wrong house

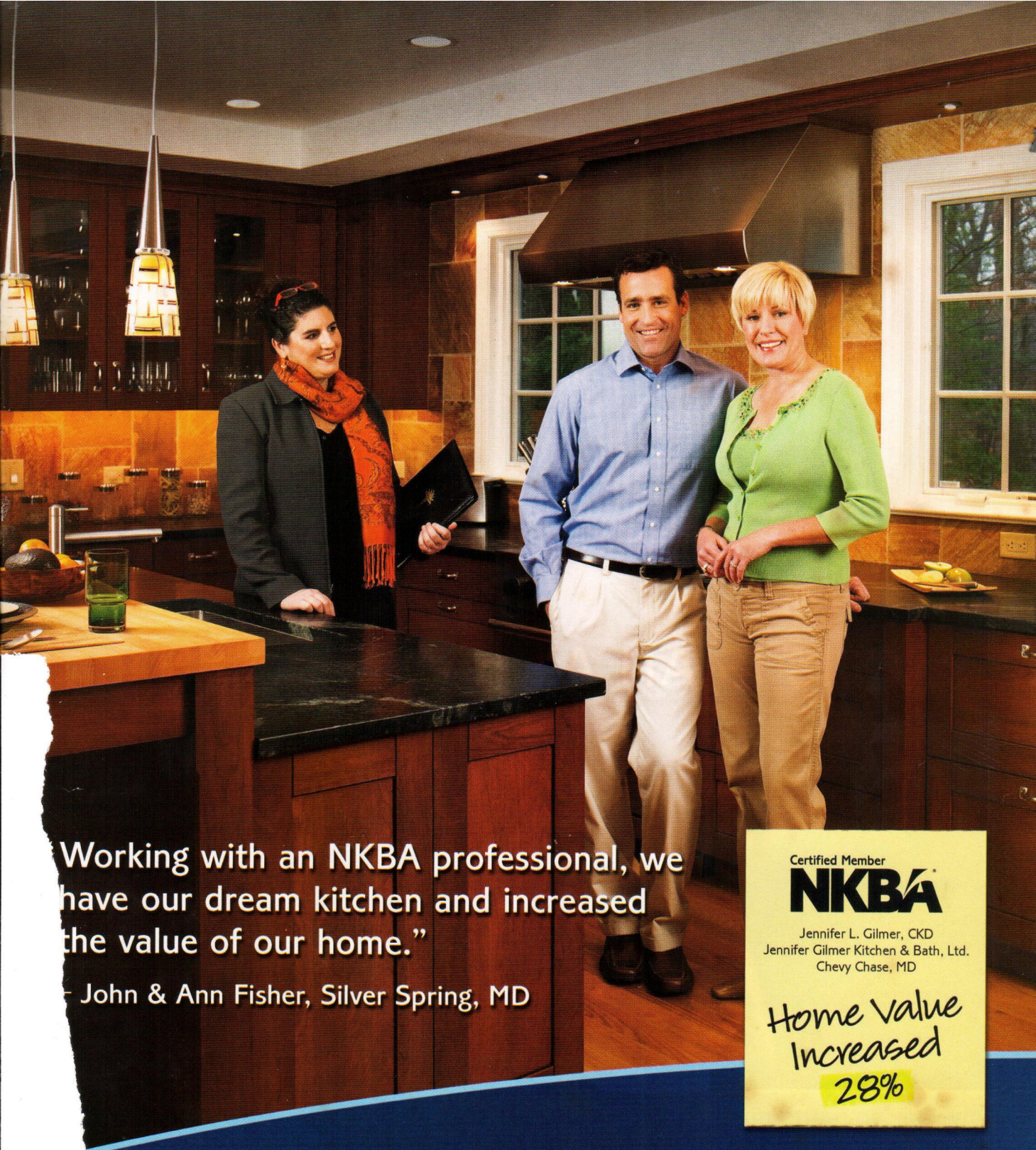
I'm a carpenter who specializes in building decks. When the secretary of our company gave me the address and paperwork to build a deck for a customer, I drove to the house and got started. Two and a half days later, the beautiful new deck was finished.

Oddly enough, our company secretary told me that she'd been getting calls from an angry homeowner wondering why we hadn't started her deck yet. Well, you guessed it. We built the deck at the wrong house—a rental property that was vacant during the construction. The owner was happy to get a free deck and even hired us to build a couple more at his other properties. But it'll take a lot more decks to make up for that costly mistake!

— Anthony L. Carson

Editor BRETT MARTIN · Art Direction MARY SCHWENDER · Illustrations STEVE BJÖRKMAN

Got your own do-it-yourself mistake?
We pay $100 for each one we print.
Send an e-mail to greatgoofs@thefamilyhandyman.com
or write to: Great Goofs, The Family Handyman,
2915 Commers Drive, Suite 700, Eagan, MN 55121
Original contributions become our property upon acceptance and payment.



KBA
Kitchen & Bath Association
NKBA.org

Invest in a Professional.

Learn how NKBA professionals can enhance your home at NKBA.org.

- Find A Professional
- Free Design Workbook
- Design Tips, Tools, and Advice
- Inspiration Gallery

THIS IS AN ALLSTATE AGENT

Myles Harris
Stockton, CA

WANT TO SAVE UP TO 40% ON MOTORCYCLE INSURANCE?

Allstate has over 600 agents who ride. So they know bikes. And they know how to help you save money insuring one—**You can save up to 40%**. Plus Allstate has more motorcycle discounts than most other companies.

You deserve an agent who speaks your language. That's Allstate's Stand.

TALK TO AN ALLSTATE AGENT TODAY | 877-361-BIKE | allstategarage.com

Allstate
MOTORCYCLE INSURANCE